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ABSTRACT

This programed instruction project for adult Four-H leaders was undertaken to develop a ten unit manuscript covering basic Four H concepts; to prepare four versions thereof differing in response mode; to field test all four on a national sample of leaders; and to prepare a final research edition of the course based on the response mode proving most effective. Two groups of about 600 each were given multiple choice pretests based on programed materials. Alternatives were multiple choice programed texts, multiple choice marked format, essay format, and essay answered format. Performance and background data were obtained on all subjects. The multiple choice marked (MCM) format was chosen, and unprogramed portions of the material were programed accordingly. It was recommended that the MCM format be used for subsequent editions of the self-study course, and that pictures and an attractive format be added. (The document includes pretests and posttests, guidelines for writing materials to be programed, descriptions of field test items, data codes, the experimental design, and 42 references.) (LY)

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Report
on
DEVELOPMENT AND EVALUATION OF A SELF-STUDY COURSE FOR ADULT 4-H LEADERS

A Project Supported by the Federal Extension Service

by
Charles O. Neidt, Director
Human Factors Research Laboratory
Colorado State University

Fort Collins, Colorado
June 30, 1968

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Cooperative Extension Service
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I. INTRODUCTION AND ORIENTATION TO THE PROJECT

The general purpose of the project reported herein was that of developing and validating a programmed instruction course for adult 4-H leaders. Within this general purpose, the specific objectives of the project were as follows:

1. To develop a ten-unit manuscript covering basic 4-H concepts for adult 4-H leaders,
2. To prepare four programmed instruction versions of the ten units, each version being based on a different mode of response to the programmed material,
3. To field test the four versions of the program on a national sample of adult 4-H leaders, and
4. To prepare a final research edition of the programmed instruction course based on that mode of response shown to be most effective in the field test.

Background

Well trained adult 4-H leaders are essential for the success of the 4-H Club. Many problems are associated with making effective educational experiences continuously available to adult leaders, however. For example, the time of the County Agent may be too limited to provide in-depth training to leaders either on a group or an individual basis. The constant turnover in leader personnel means that new leaders must be oriented almost continuously. The time leaders can give for their own education may be not only limited but irregular, thereby prohibiting regularly scheduled classes. Some leaders need to cover orientation materials much more slowly than others if a reasonable mastery is to be achieved. These are only a few of the difficulties which must be overcome if the essential condition of "well trained" leaders is to be achieved.

The technique of programmed instruction offers promise for assisting in the solution of such problems as the foregoing. Use of this technique permits the learner to study independently at a time and place convenient to him as well as at a pace of his own choosing. Assessing the contributions of this technique, reviewing its present status, and noting its limitations warrants additional discussion. In the remaining portions of this section the technique of programmed instruction is described, its history reviewed, and its applications are illustrated. In addition, some unanswered questions about its use in specific situations are mentioned.

Orientation to Programmed Instruction

Of all the techniques of instruction recently developed by psychologists and educators, the one which has probably attracted greatest attention is programmed instruction. This technique exists in several forms and has been applied in a variety of settings. In some instances programmed instruction involves highly complex electronic devices and in other instances it takes the form of relatively simple notebooks. It has been used for teaching very young children in nursery school settings and it has been used for teaching adults in correspondence settings. Regardless of the form or the setting where it has been applied, however, programmed instruction possesses the following characteristics:

1. Each student works individually on programmed materials at his own pace. This accommodates great latitude in ability among learners in contrast to a fixed pace approach such as that involved in the lecture or film method where all individuals are expected to proceed at the same rate.

2. Small units are presented to the learner in a specified sequence. At any point in time a learner is being exposed to only a single

unit. The information presented to the learner and one or more questions about it or one or more statements to be completed constitute a "stimulus."

3. The student is required to answer questions or complete statements about a unit before he proceeds to the next unit. Thus, the student makes one or more "responses" to each stimulus as he works through programmed materials.

4. The student is informed immediately whether or not his response to each stimulus is correct. If his response is wrong he may be told why and then given the correct response, or be given additional remedial information to learn. Thus, through immediate feedback (being told whether or not his response is correct) the student is rewarded (reinforced) for a correct response. This serves to increase the probability of making correct responses in the future. Actually, the learner cannot complete the material without knowing the correct response to each unit.

5. The student is presented with the next unit and the cycle (information-response-reinforcement) is repeated. This occurs until all the material has been covered in a logical fashion. Provision in the material is usually made for practice and for review.

Each unit of information in programmed instruction is called a "frame." A series of frames covering some specified subject matter is called a "program." The length of a program may vary from a relatively few frames (less than 50) to several thousand frames. Care is taken by those preparing programs to make sure that a logical order of frames is followed throughout the material being covered. Most programs begin with simpler concepts and advance to the more difficult ones.

From the foregoing it can be seen that programmed instruction is a combination of several recognized principles of learning, some of which have been established for many decades, and others being relatively new. But just how old is "programmed instruction," how did it start, and what is its current status? These and other topics will be discussed in the following paragraphs.

Historical development. Because the concept of programmed instruction involves a combination of several learning principles, it is difficult to identify its exact origin. The individual usually designated as responsible for the pioneer work in the area is Dr. Sidney L. Pressey, educational psychologist, of Ohio State University. In 1924, Pressey invented a machine for students to use in taking multiple choice examinations. This machine consisted of a window in which a test item appeared and a series of buttons to be pushed by the examinee. The buttons corresponded with each of the test item alternatives and the next item would appear at the window only after the appropriate button for the correct response to the previous item had been pushed. Although this machine was designed for testing purposes, its instructional value was discussed by Pressey in an article in School and Society in 1926 (35).

Peak activity in the development of programmed instructional devices (sometimes called hardware) was reached following World War II. Much of this activity was stimulated by the research of Dr. B. F. Skinner of Harvard University in the 1950's. Although much of Skinner's work related to the construction of machines for teaching, he was also concerned with programmed texts (software), the most appropriate way of organizing material, procedures for providing meaningful feedback, and methods of isolating sound reinforcement experiences (16).

In current usage, programmed instruction includes both machines and texts (hardware and software). Hardware ranges from simple metal boxes with a window through which a frame can be seen to highly complex electronic equipment used in combination with film projectors and voice recordings. Software ranges from simple, small notebooks having one frame per page to "scrambled" texts in which the learner is told the page to which he should turn according to the correctness of each response he makes.

Programs can be roughly classified into two types--linear and branched--according to the theoretical approach followed by the person preparing the program. A linear program is one in which the learner responds to each frame in sequential order. In linear programming no remedial frames are provided since an effort is made by the program writer to divide the material into such small increments that wrong responses will be minimized. In branched programming, an explanation for each wrong response is given and remedial frames may be required of the learner before proceeding to the next unit. Obviously, this approach permits those who make consistently correct responses to move through the material much more rapidly than those who frequently make wrong responses. Avoidance of error in the initial response is much more critical in linear programming than in branched programming. The branched program lends itself to wider variation in ability of learners, however, since not everyone is required to cover exactly the same material in completing the program.

Applications. As was indicated previously, programmed instruction, in one form or another, has been used in a variety of situations and at all academic levels. These have included educational settings, industrial settings and military settings.

Perhaps the earliest application in education was in 1934 when Little taught one group of educational psychology students using a Pressey-type machine approach and one using the conventional method. The groups had been matched on intelligence test scores, but the machine group scored much higher on the final examination for the course (24).

Most of the application of programmed instruction to educational settings is much more recent than the aforementioned study. Illustrations of such application include the following: In Roanoke, Virginia, 34 eighth grade students covered an entire year of algebra in a single term using a programmed text for fifty minutes per day. They were assigned no homework. Forty-one per cent of these eighth graders scored higher on a final examination than the average of a group of ninth graders who had taken a complete two-term course (9).

In a study at the elementary school level, Keisler used a programmed filmstrip presentation to teach some basic principles of elementary arithmetic to fourth and fifth graders. Two matched groups were involved, one taught with a program and the other with a conventional method. The programmed-material group scored significantly higher than the conventional-instruction group (19). Similar results were obtained by Porter in a twenty-two week spelling course taught to second and sixth graders (34). Meyer, in a study involving eighth graders, found that programmed instruction was associated with significant gains in scores on a word prefix test (28).

A physics program was used in fifteen Pittsburgh high schools to supplement films and laboratory work. The achievement of the more than 400 students who participated in the project was higher than that of previous years' classes (22).

Students at Hamilton College were found to finish a programmed course in freshman logic in two-thirds the usual time with a significant increase in achievement on the final examination (2). Earlham College reported success with programs in Russian and Spanish, general and educational psychology, chemistry, elementary statistics, biology, genetics, music, and the Bible (41). Skinner and Holland used teaching machines to present the basic core of a psychology course at Harvard University. This was supplemented with lecture and reading materials. Students in the teaching machine group studied at their convenience and it was found that their scores were almost twice as high on the final examination items covering the program as they were on items covered only in the lectures and outside reading (25).

In a comprehensive study undertaken by Roe at UCLA, a linear program in elementary probability was presented to 186 engineering freshmen by programmed texts, teaching machines, and programmed lectures, as well as by the conventional lecture method. Both a Skinner-type machine and a multiple choice machine especially developed for the study were used. The effectiveness of learning under these conditions was measured by a test at the end of the course. Results indicated that students learned equally well from all forms of the programmed materials, but those using the programs all exceeded the conventionally-taught students (39).

There have been an increasing number of applications of programmed instruction in industrial settings during the past few years. At General Telephone Company of California, information operators are trained with a taped program. Installer-repairmen are trained in basic electronics by a scrambled text. The Hughes Aircraft Company uses the Videosonic Communication System to train electronic assembly workers. Step by step assembly instructions are given to production-line workers by means of tapes and small rear screen projectors mounted directly over the assembly line. Feedback is provided at each step when the assembler compares his own assembly with a model (21).

At the Bell Telephone Laboratories a 3500-response program on basic electricity was prepared for electronic maintenance technicians. This program was evaluated against a conventional approach and found to be superior for teaching both facts and complex concepts (17). In another such study, six junior mechanics at duPont reflected much higher scores on a final examination and reported a 25 per cent savings in time over their conventionally-taught counterparts (33).

At the State Farm Insurance Companies, Neidt and Sears applied programmed instruction to the orientation of new employees and found this to be a superior method to conventional orientation techniques (31). Schering has found that its sales representatives who studied a programmed text on fungus diseases before reporting to class did better on an achievement test than salesmen taught the same material by lecture methods (19). Spiegel explains its employee incentive program to new employees through the use of programmed instruction (19). Varian has programs on meter reading and microwave tubes for its salesmen and customers (19). Mead Johsnon trains detailmen in basic physiological systems through programmed texts. IBM, in addition to instructing maintenance engineers and other engineering personnel by programmed texts, provides programs to salesmen and customers for operating electronic computers (20). Prudential teaches the principles of life insurance to its new agents through programming. Quaker Oats has prepared a program to teach labor-management contract provision to key personnel (19).

The foregoing illustrations are but a few of a vast number of applications of programmed instruction made in industrial settings. It is readily apparent from these illustrations, however, that programmed instruction has had a profound influence on industrial training.

In addition to its use in academic and industrial settings, programmed instruction has been used extensively for military training purposes. The Army, Navy and Air Force have all financed many military research projects related to programmed instruction.

Cantor and Brown compared two teaching machine approaches to conventional instruction for teaching electronics troubleshooting for naval trainees. Both programmed instruction approaches were superior to the conventional technique (4).

Two matched samples of Air Force trainees were taught a section of a maintenance course by two methods. One method involved an instructor only and the other method involved a teaching machine for part of the same course. The teaching machine group attained greater proficiency scores than the conventional group although there was no difference on a written achievement test (27).

Robins developed taped programs for teaching foreign languages and typing to Navy personnel. A program was also used successfully for training aboard submarines firing the Polaris missile, and another program was used successfully by the Navy in teaching pilots the fundamentals of instrument flight (40).

Neidt and Meredith measured changes in the attitudes of learners toward instruction when programmed material was interpolated between conventional instructional experiences in two Air Force courses. They found that attitudes became much more favorable during the programmed instruction period but that attitudes dropped sharply when the students returned to conventional instructional experiences (32).

As additional experience is gained with programmed instruction, new uses will be found for it. Although it is no panacea for all educational problems, its contribution is unquestionably a major one. Briggs (3) has summarized the advantages of using programmed instruction as follows:

1. An expert program writer can reach a large number of students.
2. Misconceptions held by minimally qualified instructors will not be passed on to students.
3. Errors are immediately corrected and do not lead to further errors in the problem sequence.
4. Each student works at his own rate.
5. Slow students are not embarrassed by their lower rate of learning.
6. Slow students are required to master the material, and fast students can save time.
7. Fast students can do extra assignments to develop further skills.
8. The need for examinations is greatly reduced.
9. The early and continued experience of success augments student motivation.
10. Good instructors can use their time to better advantage than performing rote drill.

It was on assertions such as those proposed by Briggs that the present project was based.

Value of different response modes. Most educators recognize the advantages of programmed instruction outlined in the foregoing section. The worth of programmed learning has been demonstrated in diverse settings. The question of the best response mode for persons of varied ability in a given situation, however, is strongly debated. Within linear programming various response modes may be employed: simply the reading of the paragraph or frame, the reading of the frame followed by multiple choice questions, the reading of the frame followed by questions requiring a construct (write-in) response, or varied combinations of these formats. The value of one format over another is contested by many authors.

The original principles of programmed instruction emphasize overt responses and knowledge of results. Since both constructed response and multiple-choice forms require more subject participation than a reading mode, traditional programming principles would predict that the subject learns more from these first two forms.

This is what Williams found when she divided her subjects into four groups determined by response mode: constructed response (fill in the blank), multiple choice, emphasis (key words underlined), and reading only. Although she reports no difference in performance between the constructed response and multiple choice group, both groups scored significantly higher on a post test than did the emphasis or reading group (42).

Other authors cite evidence which justifies a distinction between multiple choice and constructed response. In 1960, Fry discovered that the constructed response mode led to higher achievement than multiple choice format on a more sensitive recall test but not on a test of recognition (10). Further definition of the criterion by Krumboltz and Weisman resulted in data which showed that subjects taught with constructed response format scored higher than subjects who had utilized multiple choice mode on a delayed test. An immediate test, however, showed no difference in the two modes (23).

From these results, one would conclude that the constructed response mode, or at least overt responding is superior to reading formats. Elliot and MacMurray, however, disagree. In 1966, they compared groups of high school subjects matched as to IQ on two types of programmed text dealing with simple reflexes. No significant difference in retention between the group which merely read the frames and the group which both read and actively responded were reported(7). Similar results of no significant difference in scores on a final test between subjects taught with overt as opposed to reading response modes were reported by Hortman and Morrison (15), Fiks (8), Reid and Taylor (36) and Alter and Silverman (1).

At present the conflict stands unresolved. It is difficult to generalize a "best" response format from isolated studies. For acquiring specific information within a given situation, the most effective mode of response must be determined within that situation. The present study was designed to answer the question of appropriateness of response made for adult 4-H leaders.

II. PROCEDURE

Achievement of the objectives detailed in the foregoing section of this report required a series of interrelated steps. These included manuscript preparation, development and tryout of test materials to be used in evaluating the four experimental versions of the programmed instruction course, preparation of the four experimental versions of the programmed material, selection of the sample of adult 4-H leaders for the field test, collection of and analysis of evaluation data, and preparation of the final version of the course. The manner in which each of these steps was completed is described in this section of the report.

Preparation of Manuscripts

Basic to the successful development of a programmed instruction course for adult 4-H leaders was the preparation of written manuscripts covering the topics to be programmed. After consultation with many experienced professional Extension Service personnel and adult volunteer 4-H leaders throughout the nation, Dr. V. Joseph McAuliffe[1] of the Federal Extension Service staff designated ten topics for inclusion in the course. He also suggested the names of individuals who had shown excellent knowledge of and unusual capability to interpret each of the topics. These were individuals with extensive 4-H experience as well as extensive formal education in the subject matter area they were assigned. The following authors agreed to prepare a manuscript or chapter about the topic assigned to them:

---

[1] Presently at the University of Minnesota

Name, Title and Address	Topic
Wilbur F. Pease Assistant Director of Extension Roberts Hall New York State College of Agriculture Cornell University Ithaca, New York 14850	Why 4-H?
Dr. George Foster 4-H Club Specialist & Leader University of Tennessee P.O. Box 1071 Knoxville, Tennessee 37901	The 4-H Club Meeting
Dr. Dale Apel Associate State Club Leader Kansas State University Manhattan, Kansas 66504	Planning the 4-H Program
Elaine Skucius Associate State Leader, 4-H & YMW Extension Service Agricultural College Lincoln, Nebraska 68503	Learning Experiences
Dr. George P. Rowe Extension Youth Specialist Extension Division University of Missouri 208 Waters Hall Columbia, Missouri 65202	How Youth Grow Up
Joe T. Waterson & M. Amalie Vasold Program Leaders 4-H Youth Programs Cooperative Extension Service 1 Agriculture Hall East Lansing, Michigan 48823	Motivations of Youth

Mildred Fizer State Chairman, 4-H & Youth Development Programs Cooperative Extension Service Agricultural Sciences Building Evansdale Campus West Virginia University Morgantown, West Virginia 26506 and Donald Moss Graduate Research Assistant Colorado State University Fort Collins, Colorado 80521	A Few Teaching Methods
Jack M. Tyree State 4-H Leader Virginia Polytechnic Institute Blacksburg, Virginia 24061	Parent Cooperation
Dr. Edward F. Schlutt Associate State 4-H Club Leader Texas Agricultural Extension Service College Station, Texas 77841	4-H In The Community
Laura G. Cooley 4-H Club Specialist Agricultural Extension Service University of California 2200 University Avenue Berkeley, California 94720	Resources To Help You

Following an orientation to the project by Dr. McAuliffe, each author was contacted by the project director and a contractual arrangement finalized wherein each author agreed to furnish the Human Factors Research Laboratory of Colorado State University a manuscript covering the assigned topic by a specified date. The project director was to furnish each author a guideline for the preparation of the manuscripts so as to make the programming as efficient as possible. The Guideline which was given to each author is shown in Appendix A. Of the ten manuscripts so contracted, four were completed by the specified date, three within an additional month, and the remaining three within two additional months.

Development and Tryout of Test Materials

When each manuscript was received it was analyzed according to objectives or behaviors defined and concepts covered. Approximately thirty such concepts were identified for each unit and checked for duplication. Analysis according to this procedure yielded a total of 290 independent concepts involved throughout the course. For each concept, a multiple-choice item consisting of a stem and four alternatives were constructed. These items were reviewed and edited by two persons who had read each manuscript other than the item constructor.

Since empirical evidence of the effectiveness of the individual items was desired for the preparation of the examinations to be used in the field test of the course, it was decided to field test the items on a sample of adult 4-H leaders similar to those who would be involved in evaluating the four versions of the program. Since it was unrealistic to assume that volunteer 4-H leaders would each be willing to try out 300 items, two examinations of 100 items each and one of 90 items were prepared by dividing the item pool into thirds (Appendix B). These examinations were labeled Forms A, B, and C for identification purposes and a careful record was maintained of the chapter source associated with each item.

To obtain a group of adult 4-H leaders who would each be willing to try out one form of the examination, six county agents in Colorado were asked by the Director of Extension of Colorado State University to furnish names of adult 4-H leaders from their county who would agree to take an examination consisting of 100 items on an experimental basis (Appendix C). A letter, (Appendix D), was prepared by the project director explaining the project, but sent over the signature of the county agent for distribution to volunteer.

leaders in a given county. A return post card was enclosed with the letter so that the leader concerned could indicate his willingness or unwillingness to participate in this phase of the study. These cards were sent to the Human Factors Research Laboratory as soon as they were received by the local agent. The test itself, along with a separate answer sheet and a return envelope, were sent to the leaders by the Human Factors Research Laboratory. In this manner, 335 Colorado adult 4-H leaders were asked to participate in the experimental tryout of the test materials. In total, 55 leaders completed Form A, 53 Form B and 57 Form C. The following County Extension Agents participated in this phase of the project:

Mr. Loren W. Alexander
Area Extension 4-H Specialist
P.O. Box 580
Grand Junction, Colorado 81501

Mr. Sid Campbell
Extension Agent
P.O. Box 543
Fort Collins, Colorado 80521

Miss Marie Lienert
Extension Home Agent
1226 North Main
Longmont, Colorado 80501

Mr. Alvie Roth
County Extension 4-H Specialist
922 9th Street
Greeley, Colorado 80631

Mr. Floyd Shoemaker
Extension Agent
County Courthouse
Littleton, Colorado 80120

Mr. Howard Temple
County Specialist
Courthouse
Brighton, Colorado 80601

When the answer sheets were received by the Human Factors Research Laboratory, the total number of items correct for each test was obtained and the difficulty of the item (per cent correct) and correlation with the total score were computed. These values are shown with the tests in Appendix E.

Following the analyses of the individual items, the items were resorted according to chapter and rank ordered within topics on the basis of their difficulty level and correlation with total score. It was therefore possible to identify the best twenty items over each chapter and to prepare equivalent forms of a pretest and a final examination for use in evaluating the four response modes. Copies of the pretest and final are shown in Appendix F.

Development of the Four Programmed Instruction Versions of the Course

The programmed text prepared for this project was designed to be of greatest use to the typical adult 4-H leader. It was meant as an informative presentation of basic principles of 4-H knowledge. Since the leaders were to be offered no incentive to complete the programmed text, every attempt was made to insure that the material was meaningful and interesting.

Programmers reviewed the 4-H experts' manuscripts for major points of information. After reaching agreement as to the main objectives of each manuscript, the programmers prepared a series of frames or paragraphs which presented the information in small consecutive stages. Appropriate questions and answers followed each frame. Each frame was numbered, and the questions following each frame were printed in a box. The answer immediately following the question was not boxed. In this way the question tended to stand out from the answer, and each frame or paragraph of information was set off with its appropriate number. This particular method of layout enabled a considerable amount of material to be printed on each page and therefore reduced the bulk of the program.

One of the purposes of this study was the evaluation of the best response mode for the adult 4-H leader. For this reason four separate programs were prepared from the material. In each of the four forms of the programmed text, different types of questions followed the frames of information. The four types of questions consisted of:

Type I - multiple choice questions
Type II - multiple choice questions with the correct answer marked
Type III - essay or fill-in-the-blank questions
Type IV - essay answered question or statements with the key
words underlined

For instance:

Frame 1

The 4-H emblem is a green four-leaf clover with a white "H" on each leaf. This "H" represents the development of head, heart, hands, and health.

This frame would be followed in Type I program by:

The 4-H emblem is
a. a silver cross
b. a green four-leaf clover
c. a green three-leaf clover
d. a four-pointed star

b. the 4-H emblem is a green four-leaf clover

...in Type II program by:

The 4-H emblem is
a. a silver cross
* b. a green four-leaf clover
c. a green three-leaf clover
d. a four-pointed star

The 4-H emblem is a green four-leaf clover

...in Type III program by:

What is the 4-H emblem?________________________________

The 4-H emblem is a green four-leaf clover.

...in Type IV program by:

What is the 4-H emblem? The 4-H emblem is a green four-leaf clover.

Preliminary drafts of the programmed material were reviewed by three programmers and edited by graduate students acquainted with the topics.

Five of the programmed manuscripts were completed in time to allow them to be returned to the original 4-H author for final editing and comments. Each programmed manuscript or chapter was discussed at joint meetings of editors and programmers. Irrelevant items were deleted and unclear points were clarified. During these meetings, eight chapters were paired as to content and difficulty. Two chapters, "4-H Teaching Methods" and "Resources to Help You" were left as numbered frames of information without questions. The purpose to be served by these chapters was that of providing a comparison of learning aptitude among the leaders in the field test. It was assumed that greater accuracy could be achieved in comparing the four versions if some estimate of learning ability were available for each leader. By asking all leaders to read two unprogrammed chapters after taking a pretest over these two chapters and then taking a final examination over the two chapters, a suitable control would be available. This control could be defined as the amount of information gained from reading the two chapters. Since the test items and the two chapters were identical for all leaders, the index of learning ability therefor became feasible. It was intended that the two chapters would be programmed and included in the final version of the course according to whichever mode of response proved to be the most effective in the field test.

The programmed chapters, "Why 4-H," "Planning the 4-H Program," "Learning Experiences," "How Youth Grow Up," togehter with "4-H Teaching Methods," and "Resources to Help You" were combined to form the Alpha field test booklet. Chapters deemed similar: "4-H in the Community," "The 4-H Meetings," "Parent Cooperation," "Motivations of Youth" were added to "4-H Teaching Methods and "Resources to Help You" to compose the

Beta field test booklet. The composition of the Alpha version therefore consisted of:

	Chapter
Programmed Instruction	1. Why 4-H?
	2. Planning the 4-H Program
	3. Learning Experiences
	4. How Youth Grow Up
Reading	5. 4-H Teaching Methods
	6. Resources to Help You

and the Beta version consisted of:

Programmed Instruction	1. 4-H In The Community
	2. The 4-H Club Meeting
	3. Parent Cooperation
	4. Motivations of Youth
Reading	5. 4-H Teaching Methods
	6. Resources to Help You

The use made of these two sets of materials is described in the following section. It will also be recalled from the previous discussion, that the pretests and final tests parallel the Alpha and Beta programs just described. In summary, the Alpha pretest consisted of forty items and the Alpha final consisted of forty additional items covering the first four chapters in the Alpha text. Comparably, the Beta pretest and Beta final consisted of forty items covering the first four chapters in the Beta text. Both the Alpha and Beta pretest and the Alpha and Beta final contained twenty identical items over the two unprogrammed chapters.

Field Test Sample and Procedures

The states of Arizona, Georgia, Vermont and Wisconsin were designated by the Federal Estension Service to serve as the field test sample for this study. The following State 4-H Leaders assisted by sending the names of approximately 300 volunteer adult 4-H leaders from each of their states:

Mr. Graham P. Wright
State Leader, 4-H Club Work
College of Agriculture
University of Arizona
Tucson, Arizona 85721

Dr. Tommy L. Walton, Jr.
State 4-H Leader
College of Agriculture
University of Georgia
Athens, Georgia 30601

Mr. John D. Merchant
Supervisor and Program Leader
Extension Service, Morrill Hall
University of Vermont
Burlington, Vermont 05401

Dr. Frank N. Campbell
State 4-H Leader
Youth Department, 4-H
University Extension Building
Madison, Wisconsin 53706

These subjects were randomly assigned to the Alpha or Beta Group. The 600 members of the Alpha Group were sent a pretest (standardized on 150 adult 4-H leaders from the State of Colorado) consisting of multiple-choice items representative of the six chapters earlier assigned to the Alpha programmed text booklet. The 600 leaders in the Beta Group were similarly sent a multiple-choice pretest (standardized on 150 adult 4-H leaders from the State of Colorado) covering the six chapters which had been assigned to the Beta programmed text booklet. Copies of the Alpha and Beta pretests appear in Appendix F.

Upon completion of the pretest, the subjects were requested to return their answer sheets to the Human Factors Research Laboratory for scoring. Questions covering the first four chapters pertaining to the programmed material were scored and recorded. Questions pertaining to the remaining two chapters which covered material that was not to be programmed in the Alpha or Beta programmed text booklet were scored and recorded separately for each subject.

Both the Alpha and the Beta Groups were now divided randomly into four subgroups. Subgroup Number 1 was sent the Alpha or Beta programmed text with the first four chapters programmed in multiple-choice format (Type I response mode). Subgroup Number 2 was sent Type II or multiple-choice marked format. Subgroup Number 3 was sent Type III or essay format. Subgroup Number 4 was sent Type IV or essay answered format. The last two chapters were unprogrammed for all eight subgroups. The design is described in Diagram #1, Appendix G.

The 4-H leaders indicated that they had completed the programmed text by returning a post card to the Human Factors Research Laboratory (Appendix H). This card was their request for the final test. Final tests in the appropriate Alpha or Beta form were sent and the leaders were asked to return the answer sheets to the Laboratory. Again, the questions pertinent to the programmed and unprogrammed material were scored and recorded separately. The participating subjects were then sent a letter thanking them for their cooperation and indicating that a copy of the final programmed text for adult 4-H leaders would be sent upon publication. A copy of this letter appears in Appendix I.

Data for each subject were recorded on file cards. Recorded data included name, address and county, date pretest was sent, date pretest was returned, form of pretest sent, date programmed text was sent, date final was sent, date final was recieved, pretest score of programmed material, pretest score on unprogrammed material, final score on programmed material, final score on unprogrammed material, demographic information including sex, whether or not a member of 4-H before becoming a leader, length of time since last formal schooling, length of time a 4-H leader, and size of community in which they lived. All data were coded for electronic data processing according to the code described in Appendix J. Following the coding, the data were keypunched for analysis using an analysis of covariance program (single classification with three control variables) especially adapted for the CDC 6400 electronic computer.

When the appropriate format had been selected, the remaining two chapters were programmed and a new edition of the total course was printed. A copy of this edition was given to participants who had completed their a assigned materials during the field test.

III. RESULTS

The research design of the project reported herein required that comparisons of learning effectiveness be made among four types of response made to adjunct programming. The measure of learning effectiveness used as the criterion was the score obtained by each 4-H leader on the final examination covering the programmed material he had studied. Because of the possible differences among leaders in knowledge prior to the project, it was considered desirable to measure prior knowledge as well as final knowledge. Further, to account for differences in ability or learning aptitude among the leaders, it was considered desirable to use the pretest and final scores on the unprogrammed material as control variables. Thus, the major analyses consisted of a four category comparison with respect to a final score while holding constant individual differences related to prior knowledge and learning aptitude.

The analysis of covariance (single classification with three control variables) was selected as the technique for data analysis. Each set of materials, Alpha and Beta, was analyzed separately which permitted generalization across two sets of material.

In addition to the test data analyses, tabulations were made of the demographic data collected about participants in the project. The purpose of obtaining these tabulations was to provide insight into the characteristics of participants which might have implications for the subsequent use of the self-study course. These data are shown in the next section of this report and the test analysis in the following section.

Description of Participants in the Field Test

It will be recalled that adult 4-H leaders from each of four states (Arizona, Georgia, Vermont and Wisconsin) were to participate in the field test. Three hundred names were solicited from each state so that a minimum of 200 completions would be assured. In Table 1 are shown the number of participants by state and level of participation in the field test.

Table 1

Participation in Field Test
by State and Level

State	Level of Participation				Total
	Completed Pretest*	Completed Program**	Completed Final	Dropped	
Arizona	134	11	42	121	308
Georgia	102	14	46	121	283
Vermont	148	8	56	152	364
Wisconsin	113	18	63	74	268
Total	497	51	207	468	1223

*Sent program but not completed
**Sent final but not completed

Inspection of this table indicates that of the 1223 4-H leaders initially contacted, 207 actually completed all requirements. In addition, 497 completed the pretest and were sent a program but did not return it, 51 were sent a final test, but did not return it. Percentagewise, the states ranked as follows in terms of completions:

Wisconsin	23.5%
Georgia	16.3%
Vermont	15.4%
Arizona	13.6%

The size of community in which the final participants (those who completed all requirements) were living is shown in Table 2. From this table it can be seen that there was a tendency for a preponderance of rural female leaders to have been included in the responding group. It should be noted, however, that the relative proportion of respondents cannot be inferred from this table since the number of rural females in the original sample was not known.

Table 2

Communtiy Size of Final Field Test Participants
in Field Test by State and Sex

	State									
	Arizona		Georgia		Vermont		Wisconsin		Total	
Size	M	F	M	F	M	F	M	F	M	F
No Answer	0	2	0	0	0	0	0	0	0	2
Rural	2	7	4	13	2	30	5	52	13	102
Less than 2500	1	4	0	3	1	9	0	3	2	19
2500 - 10,000	1	2	3	9	0	9	0	1	4	21
10,001 - 50,000	0	7	0	9	0	5	1	1	1	22
Over 50,000	4	12	0	5	0	0	0	0	4	17
Total	8	34	7	39	3	53	6	57	24	183

Whether or not the 4-H leaders in the study had been 4-H members prior to becoming adult leaders is shown in Table 3. Inspection of this table indicates that there was relatively little difference between males and females in terms of having been or not having been a member prior to becoming an adult 4-H leader.

Table 3

Membership in 4-H Prior to Becoming a Leader
by State and Sex of Final Participants

State	Sex	Member		No	Total
		Yes	No	Answer	
Arizona	Male	4	2	2	8
	Female	16	16	2	34
Georgia	Male	5	2	0	7
	Female	25	14	0	39
Vermont	Male	0	3	0	3
	Female	24	29	0	53
Wisconsin	Male	3	3	0	6
	Female	24	33	0	57
Total	Male	12	10	2	24
	Female	89	92	2	183

Length of time as a 4-H leader is shown for the participants in Table 4. Inspection of Table 4 indicates that the leaders in the project had had varying periods of time as leaders. This suggests that experienced as well as inexperienced leaders will respond to a self-study program of this type.

In Table 5 is shown the length of time since last formal schooling as reported by the leaders completing all requirements in the project. From

Table 4

Length of Time As A 4-H Leader
by State and Sex of Final Participants

Length of Time	Arizona M	Arizona F	Georgia M	Georgia F	Vermont M	Vermont F	Wisconsin M	Wisconsin F	Total M	Total F
No Answer	0	2	0	8	0	0	0	1	0	11
1	0	4	1	6	1	8	0	5	2	23
2	0	6	0	5	1	11	0	7	1	29
3	3	6	0	0	0	7	1	6	4	19
4	1	3	0	0	1	4	0	5	2	13
5	1	2	1	7	0	2	1	7	3	18
6-8	1	4	0	3	0	7	1	11	2	25
9-11	1	2	0	2	0	5	2	6	3	15
12-14	1	1	0	2	0	2	0	5	1	10
15 or over	0	3	5	6	0	7	1	4	6	20
Total	8	34	7	39	3	53	6	57	24	183

Table 5 it can be seen that there was a preponderance of leaders who had been out of school for more than ten years. Again, this suggests that age should not be a factor in using this type of self-study course.

Table 5

Length of Time Since Last Formal Schooling
of Final Participants by State and Sex

Length of Time	Arizona		Georgia		Vermont		Wisconsin		Total	
	M	F	M	F	M	F	M	F	M	F
No Answer	1	4	0	2	0	1	0	3	1	11
1	0	0	0	1	0	0	0	0	0	1
2	0	1	1	3	0	1	0	1	1	6
3	2	0	0	0	0	2	0	1	2	3
4	0	0	0	0	0	0	0	2	0	2
5	0	0	0	1	0	0	1	1	1	2
6	1	0	0	2	0	1	0	0	1	3
7	0	0	0	0	0	0	0	3	0	3
8	0	0	2	1	0	2	0	0	2	3
9	0	0	1	0	0	0	0	0	1	0
10	0	2	0	1	0	1	0	1	0	5
Over 10	4	27	3	28	3	45	5	45	15	145
Total	8	34	7	39	3	53	6	57	24	183

Reliability of the Field Test Examinations

To assess the reliability of the examinations used in the field test, Spearman-Brown estimates of reliability were computed based on odd and even scores for a random sample of thirty-five cases. These values were found to be as follows:

Alpha Pretest Programmed Section (40 items)	0.84
Alpha Pretest Unprogrammed Section (20 items)	0.76
Beta Pretest Programmed Section (40 items)	0.83
Beta Pretest Unprogrammed Section (20 items)	0.76
Alpha Final Programmed Section (40 items)	0.85
Alpha Final Unprogrammed Section (20 items)	0.77
Beta Final Programmed Section (40 items)	0.87
Beta Final Unprogrammed Section (20 items)	0.72

These data indicate that the reliability of the instruments was sufficient to permit group comparisons based on these measuring devices.

Differential Effectiveness of the Four Types of Response Modes

One of the major purposes of the present study was that of determining which one of four response modes would be superior for use with adjunct programming of a self-study course for adult 4-H leaders. The major analysis associated with the project was that based on the data shown in Table 6.

Table 6

Mean Scores for Subgroups
Within Alpha and Beta Categories

Subgroup	N	Final Mean	Pretest Mean	Unprog Pre Mean	Unprog Final Mean
Alpha (93)					
MC - I	18	24.83	19.50	10.22	11.00
MCM - II	18	26.78	20.28	9.94	12.56
E - III	35	23.51	19.77	10.09	11.09
EM - IV	22	24.72	20.00	10.00	12.45
Beta (115)					
MC - I	30	25.70	19.87	9.17	10.06
MCM - II	35	26.91	21.31	9.71	11.87
E - III	27	26.26	22.44	9.48	12.22
EM - IV	23	26.57	21.65	9.35	13.13

In Table 6 are shown the various means for these subgroups within the Alpha and Beta categories. Whereas it should be noted that some variation exists among the groups on the control variables, the multiple choice marked mode was associated with the highest criterion mean in each category.

The analyses of covariance of the criterion means and three control means are shown in Table 7. Here it can be seen that the differences among the four subgroups within each category were not statistically significant.

Table 7

Analysis of Covariance Table
for Alpha and Beta Categories

Source	Degrees of Freedom	Covariance Sum of Squares	Covariance Mean Square	F
		Alpha		
Total	89	1521.00		
Within	86	1450.43	16.87	
Between	3	70.57	23.52	1.395
		Beta		
Total	111	2200.38		
Within	108	2134.76	19.77	
Between	3	65.63	21.88	1.107

	Alpha Correlations	t	Beta Correlations	t
Final and Programmed Pretest	.398	3.36	.098	1.04
Final and Unprogrammed Pretest	.167	1.05	.294	1.72
Final and Unprogrammed Final	.614	4.87	.801	6.58

The F-value represents a test of the significance of the differences among adjusted means rather than those shown in Table 6, however. The adjusted means are shown in Table 8. In both the Alpha and Beta categories the Multiple Choice Marked response had the highest unadjusted and adjusted means. Therefore it was chosen as the response mode for the final version of the self-study course.

Table 8

Adjusted Criterion Means for Eight Subgroups

Category	N	Subgroup	Adjusted Criterion Mean
Alpha (93)			
	18	MC - I	25.36
	18	MCM - II	26.12
	35	E - III	23.90
	22	EM - IV	24.23
Beta (115)			
	30	MC - I	25.70
	35	MCM - II	26.91
	27	E - III	26.25
	23	EM - IV	26.56

To assess the relationship between the criterion and each control variable the coefficients shown in Table 7 were computed. Inspection of these coefficients indicates that the highest correlation within each category was between the criterion and the final unprogrammed score. In addition, the coefficient of correlation between the criterion and the pretest score for the programmed material was also significant. In neither the Alpha nor the Beta category was the coefficient of correlation between the criterion and the unprogrammed pretest significant.

IV. CONCLUSIONS AND RECOMMENDATIONS

When four response modes to adjunct programming were compared for two sets of material, the differences in learning effectiveness among them were found to be nonsignificant. Since it was necessary to make a selection decision for the final edition, however, that mode associated with the highest criterion mean, multiple choice marked, was selected for further use. Apparently the response from adult learners to material presented as an adjunct program can be minimal but still result in learning. This suggests that the major contribution to self study from programmed instruction is made by some factor other than the response mode. For example, organization of the material, conciseness of the writing, and immediate feedback all represent potential contributors.

Despite the fact that the adult 4-H leaders in the project were contacted locally and by the Human Factors Research Laboratory, the final number of participants was small. It is conceivable that the pretest questions threatened the leaders, thereby causing them to drop out of the study. In addition, they may not have realized the complexity of the project when they first agreed to participate. Further, the materials may not have been sufficiently attractive to them to encourage completion. Of the foregoing possibilities, that having the greatest implication for further use of the material relates to format. It is recommended that the materials which have been developed in the project be combined with pictures and attractive type prior to publication.

In summary, it is recommended that the multiple choice marked mode of response to adjunct programming be used for subsequent editions of the self-study course for adult 4-H leaders. It is also recommended that subsequent editions include pictures and an attractive format.

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APPENDIX A

GUIDELINES
FOR WRITING MATERIAL
TO BE PROGRAMMED

Human Factors Research Laboratory
Colorado State University

July 1967

GUIDELINES FOR WRITING MATERIAL TO BE PROGRAMMED

"Programmed" instruction is the technique of presenting information so that the learner will not need any instruction in addition to the "Program." Because programmed instruction is "auto-instructional," programmed books are very different from regular textbooks. Also, writing material for programmers is very different from writing material for a regular textbook. The purpose of this guide is to help subject matter experts prepare material for programmers.

General Considerations

To prepare a successful program it is necessary to consider the following:

1) Exactly what subject matter in your area the learner should know at the end of the course.
2) How much detailed information in the subject area is required.
3) How much the least experienced learner can be expected to know when he starts the course.

When you consider these three points it is easy to see that programmed instruction is a method of engineering a course from what the learner knows at the start of the course to what he must know at the end of the course.

Organizing the Script

Before the script (written material to be programmed) is written, it is necessary to define carefully the area of knowledge to be learned. Next, it is necessary to decide exactly what should be known about each subheading of the whole area. Then, as before, each subheading must be analyzed into parts. The utmost consideration is always given to what is necessary in terms of what must be known at the end of the course. As each successive subheading is analyzed, you should have specific items of information (objectives) that can be given in one sentence in the script. The most specific subheadings should contain one complete thought expressed as a paragraph in the script and so on up through larger and larger divisions to sections and finally to the chapter. An outline is obviously very helpful in organizing the script for programmed material.

Writing the Script

The next step is to write the script. The subject matter specialist must decide how to introduce the material to the least experienced learner and "build" the information (in sequence from general to specific within subheadings) into the course.

As the script is written it may be helpful to consider the following points:

1) The writing should be directly to the point.
2) Each point should be covered adequately for the desired level of understanding.
3) Absolutely nothing should be included that is not related directly to the objective (subject).
4) The writing should be simple enough for an eighth grade student.

Failure to organize precisely and write simple direct scripts will produce an inferior program because the programmers will not be qualified to evaluate a subject matter area. Please be sure to include a list of references to your material so that whenever questions arise they can be answered quickly and easily.

The following is an example which starts with the script (the written material to be programmed) and illustrates the steps in programming. Please notice that each sentence is an objective, each paragraph is an individual complete thought, the writing is directly to the point, nothing unrelated to the objectives is included, and the material is written as simply as possible.

STEP I:

Example Script: Insecticides

There are three principle ways that pesticides work to poison pests. There are stomach poisons, contact poisons, and fumigants. The living and eating habits of the pest determine which kind of poison will be most effective.

Stomach poisons must be swallowed to act. Because the poisons are deposited on the outside of the plant parts, the pest must 1) eat the plant part, or 2) contaminate the juice it sucks with tissue from the surface. Chewing insects eat the plant parts. Similarly, rasping-sucking insects, through "rasping" the plant tissue, contaminate the juice they suck with tissue from the surface. Stomach poisons, then, are effective for chewing and rasping-sucking insects.

Contact poisons are less specific than the stomach poisons because they will kill all insects that come in contact with them. The word "specific," when referring to a poison, means how much the poison is restricted in its action; the more specific the poison, the more restricted is its action. The stomach poisons are specific (restricted) to insects that swallow them. Contact poisons are specific (restricted) to insects that come in contact with them. More insects may come in contact with a posion that would eat it. Contact poisons are, therefore, less specific. Sucking insects usually require a contact poison because they would not swallow a stomach poison deposited on the outside of the plant. They will, however, touch a contact poison if it is deposited on the outside of the plant. An insecticide that kills many different kinds of insects is a broad spectrum insecticide.

(etc. through contact poisons and fumigants to the introduction of the next subheading)

The five most important classes of insecticides according to the different kinds of insecticide chemicals are: inorganic, botanical, chlorinated hydrocarbons, organic phosphate, and carbamate insecticides.

Inorganic insecticides are the oldest of the insecticides. Inorganic means that they are made from material that are not derived or extracted from animal or vegetable material and are not similar to animal or vegetable material. Some of these insecticides are lead arsenate, calcium arsenate, cryolite, sulfur, sodium flouride, sodium fluosilicate,and lime sulfur. These insecticides are largely stomach poisons. Because the newer insecticides such as the chlorinated hydrocarbons, organic phosphates, and carbamates can be used both as contact and stomach poisons the inorganics are not used very much.

Botanical insecticides are made from materials that come from other plants. Botanicals are plant derivatives. All the botanical insecticides are contact insecticides. Some botanicals are also useful as stomach or fumigant poisons. All plant derivatives tend to lose their toxic (poisonous) properties rapidly upon exposure to light and air. The short residual toxicity (rapid loss of poisonous properties) of the plant derivatives varies with each poison. The toxic properties last from one day (nicotine) to about one week ("fixed" nicotine, rotenone). The botanical or plant derived insecticides include all the nicotine poisons, rotenone, and pyrethrum. The toxicity to man in this class ranged from highly toxic (the nicotine compounds) to very low toxicity (pyrethrum) in the order they are listed above.

STEP II:

With the script properly organized and written, the next step is to "program" the information. When the information is programmed each objective (usually one sentence) becomes a frame (a question which requires the particular objective to get the right answer). This stage is usually accomplised on 4"x6" cards and the program is tried out in this stage on everyone that is available (office co-workers, secretaries, etc.) and criticized so that the writing is simple to understand, direct, and in no way ambiguous.

Examples:

Para. 1 Insecticides and Miticides

There are three principle ways that pesticides work to poison pests. There are stomach poisons, contact poisons, and fumigants. The living and eating habits of the pest determine which kind of poison will be most effective.

Information Frame

Frame 1

According to the way the pesticide acts, there are three kinds of poisons. There are

1)
2)
3)

Think of the correct answers before you go to the next frame.

Stimulus Frame

Frame 2

Answer:
1) stomach poisons
2) contact poisons
3) fumigants

The particular kind of poison that will be most effective is determined by the kind of pest and its eating habits.

a. true
b. false

Response Frame

Stimulus Frame

Frame 3

a. true; the living and eating habits of the pest determine the kind of poison that will be most effective.

~~The most effective poison is important to the pesticide consumer in terms of~~

~~1) quality of control~~
~~2) money spent on pesticides~~

--not related - omit--

Response Frame

Edited for errors and statements not related to objectives

STEP III: The Finished Program

See examples 1 and 2 from the programmed text, Pesticide Chemicals (attached).

In summary, then, to be successfully programmed, a script must be:

1) precisely organized
2) directly to the point
3) simply written
4) cover exactly (no more and no less) and adequately the objectives to be learned from the course

If the above points are observed in the writing of the scripts, the program will be a successful experience for the subject matter expert, the programmers, and most important, the learners.

Example 1

INSECTICIDES AND MITICIDES

1. There are three principle ways that pesticides work to poison pests. There are stomach poisons, contact poisons, and fumigants. The living and eating habits of the pest determine which kind of poison will be most effective.

According to the way the pesticide acts, there are three kinds of poisons. There are
1)
2)
3)

1) stomach poisons
2) contact poisons
3) fumigants

The particular kind of poison that will be the most effective is determined by the kind of pest and its eating habits.
a. true
b. false

a; true - the living habits of the pest determine the kind of poison that will be most effective.

****

2. Stomach poisons must be swallowed to act. Because the poisons are deposited on the outside of the plant parts, the pest must 1) eat the plant part, or 2) contaminate the juice it sucks with tissue from the surface. Chewing insects eat the plant parts. Similarly, rasping-sucking insects, through "rasping" the plant tissue, contaminate the juice they suck with tissue from the surface. Stomach poisons, then, are effective for chewing and rasping-sucking insects.

Stomach poisons must be ________________ by the pest to be effective.

Stomach poisons must be swallowed, eaten by the pest to be effective.

If a stomach poison is applied to a crop, the poison will be
a. absorbed by the plant
b. deposited on the surface of the plant parts

b; a stomach poison forms a deposit on the surface of the plant parts. Poisons that are absorbed by the plants and make the plants toxic to the pests are systemic poisons. Systemic poisons are more than stomach poisons; they are contact poisons as well.

A pest may swallow a stomach poison by eating the plant part or sucking plant juice that is contaminated (mixed) with surface tissue.
a. true
b. false

Example 2

8. Although the fumigants are very effective, they are highly dangerous to applicators or other warm blooded animals that may be involved. For this reason, fumigants should be applied only be experienced applicators who are equipped with all the necessary safety equipment. A fumigant applicator should never work alone and his co-worker should be equipped with all the safety equipment required to "retrieve" the applicator if he should be overcome by fumigant gas. Note: Dealers should not sell a fumigant to a home owner or farmer unless they have the necessary equipment.

Because fumigants are gases, they are not as dangerous to the applicator as a liquid or dust that can be spilled on clothes or skin.
  a. yes
  b. no

b; no - fumigants are one of the most dangerous forms of a pesticide

You can use a fumigant when you are alone if you
  a. have the right equipment
  b. know what you are doing
  c. don't care anymore

c; if you don't care anymore - equipment can fail and accidents can happen. Never use a fumigant while you are alone.

If you apply a fumigant, all you need to be safe is a co-worker.
  a. true
  b. false

b; false - your co-worker will be of no value unless he is properly equipped so that he can help you without being gased.

****

9. The five most important classes of insecticides according to the different kinds of insecticide chemicals are: inorganic, botanical, chlorinated hydrocarbons, organic phosphate, and carbamate insecticides.

There are ________ main classes of insecticides if they are classified according to the kind of insecticide chemical in the formulation.

Five; there are five classes of insecticides if they are classified according to their active ingredient.

The five classes are (see if you can think of all of them or write them on a separate sheet):
  1)
  2)
  3)
  4)
  5)

The five classes of insecticides are
1) inorganic
2) botanical
3) chlorinated hydrocarbons
4) organic phosphate
5) carbamates

****

10. Inorganic insecticides are the oldest of the insecticides. Inorganic means that they are made from materials that are not derived or extracted from animal or vegetable material and are not similar to animal or vegetable material. Some of these insecticides are lead arsenate, calcium arsenate, cryolite, sulfur, sodium flouride, sodium flousilicate, and lime sulfur. These insecticides are largely stomach poisons. Because the newer insecticides such as the chlorinated hydrocarbons, organic phosphates, and carbamates can be used both as contact and stomach poisons the inorganics are not used very much.

The oldest class of insecticides is the ________ class.

Inorganic insecticides are the oldest of the insecticides.

"Inorganic" means
- a. man made
- b. made from animal or vegetable materials
- c. material not made from, or anything similar to animal or vegetable materials

c; material that is not made from, or anything like animal or vegetable material. If you have trouble, remember in-organic; "in" means "not" and "organic" means "alive."

These insecticides are very good contact, as well as stomach, insecticides.
- a. true
- b. false

b; false; the inorganic poisons are most effective as stomach poisons

****

11. Botanical insecticides are made from materials that come from other plants. Botanicals are plant derivatives. All the botanical insecticides are contact insecticides. Some botanicals are also useful as stomach or fumigant poisons. All plant derivatives tend to lose their toxic (poisonous) properties rapidly upon exposure to light and air. The short residual toxicity (rapid loss of poisonous properties) of the plant derivatives varies with each poison. The toxic properties last from one day (nicotine) to about one week ("fixed" nicotine, rotenone). The botanical or plant derived insecticides include all of the nicotine poisons, rotenone, and pyrethrum. The toxicity to man in this class ranges from highly toxic (the nicotine compounds) to very low toxicity (pyrethrum) in the order they are listed above.

________________ insecticides are made from materials that come from plants.

Botanical insecticides are made from materials that come from plants.

APPENDIX B

November 28, 1967

Mr. Don Kaufman
Extension Agent in Charge
P.O. Box 543
Fort Collins, Colorado 80521

Dear Don:

This note will confirm the details of our telephone conversation. As I indicated, we have agreed to identify 300 leaders from several counties who are willing to take an experimental form of an objective test over basic 4-H movement concepts. We hope that you will be able to provide us with the names of 50 leaders according to the following procedure.

Please send the names of the leaders whom you feel would be willing to cooperate to Dr. C. O. Neidt, Human Factors Research Laboratory, Colorado State University, Fort Collins, Colorado, along with a few blank sheets of your official letterhead paper and 50 of your official envelopes. Dr. Neidt's staff will type a cover letter (sample of which is enclosed to be sent over your signature on your official letterhead paper, have it photocopied, type the envelopes, and return these to you to be signed and mailed to the leaders you have designated. When the leaders receive the letter, along with a description of the project and a reply card, they are to indicate their willingness to participate and return the card directly to you. When you have received the return cards from the leaders, you are to send them to Dr. Neidt and he will send the tests directly to the leaders who have agreed to participate. We feel that this procedure will encourage participation and make the project workable.

We appreciate your cooperation in this project. We feel that it will result in a substantial improvement in the 4-H movement. If you have questions, call Dr. Neidt at 491-5206.

Sincerely,

C. G. Staver
State 4-H Leader

APPENDIX C

COOPERATIVE EXTENSION SERVICE

COLORADO STATE UNIVERSITY

COUNTY EXTENSION OFFICE
WELD COUNTY SERVICES BUILDING
GREELEY, COLORADO - 80631
TELEPHONE 353-2212

As you can see from the enclosed project description, Colorado State University is conducting a nation-wide study to produce materials for use by adult 4-H leaders. As part of this project, 300 adult leaders in Colorado are being asked to contribute one hour of their time to the success of this project. You are being asked to participate because of the interest you have shown in the 4-H movement and your desire to improve it. Specifically, we are asking you to take a test of about one hundred items over basic 4-H concepts. These items are all multiple-choice and can be answered in one hour or less. You are not expected to know the answers to many of them; in fact, we hope that you will not. Otherwise there would be no need for the self-study course that is being prepared. The test will be mailed to the leaders about December 15, 1967. Leaders will be expected to return their completed test by January 1, 1968.

As an expression of appreciation for your participation in this project, you will be given a copy of the course itself for study at your convenience after it has been completed. Obviously, our part of the project deals only with a tryout of the tests, but it is an important part and essential to the field testing of the course material which will involve 1200 leaders in Wisconsin, Vermont, Arizona and Georgia.

I hope that you will give this request your serious consideration. A return card is enclosed on which you can indicate your willingness to participate. Please return it directly to me and I will send it to Colorado State University. Thanks for your consideration.

Sincerely,

Alvie W. Rothe
Extension 4-H Specialist

AWR/jf

PROJECT DESCRIPTION
PROGRAMMED INSTRUCTION MATERIALS FOR ADULT 4-H LEADERS

Ten units of a self-study course for adult 4-H leaders are being prepared in programmed instruction format by the Human Factors Research Laboratory at Colorado State University. Titles of the ten units are as follows:

Why 4-H?
The 4-H Club Meeting
Planning the 4-H Program
Learning Experiences
How Youth Grow Up
Motivations of Youth
A Few Teaching Methods
Parent Cooperation
4-H in the Community
Resources to Help You

Each unit requires 30 to 40 minutes to complete and is based upon a manuscript prepared by an authority in the field.

To evaluate the programmed material, twelve hundred adult leaders in four states will take a 45-minute pre-test examination before studying the course, complete six experimental units of material, then take a 45-minute final examination over the topics studied. Learning will be assessed by comparing pre-test and final examination scores. Four different versions of programmed instruction responses will be evaluated in the field test. That version of programmed instruction response which proves to be most effective will be used throughout the final ten-unit edition of the course. Six units rather than ten are being used in the field test to compensate for the time required for the pre-test and final examination.

County agents in the four states involved are inviting the adult leaders in their county to participate in the field test of experimental materials on a voluntary basis. Participants in the field test will receive a complimentary copy of the entire course. Schedule for the project is as follows:

January 15, 1968 - pre-test examination
February, 1968 - program distribution
March 1, 1968 - final examination

Printing of the final edition of the course is scheduled for June, 1968.

Director
C. O. Neidt
N125 Morgan Library
Colorado State University

☐ Yes, I'll be glad to participate in the project and complete the test no later than January 1, 1968.

☐ Sorry, I will be unable to participate.

Send the materials to:

____
(Name)

____
(Address)

____
(City) (State) (Zip Code)

APPENDIX D

MEMORANDUM

TO: Colorado Adult 4-H Leaders

FROM: C. O. Neidt, Human Factors Research Laboratory, CSU

SUBJECT: Experimental Test Items

We in the Human Factors Research Laboratory at Colorado State University were especially pleased to learn from your County Extension Agent that you will be helping us with our national 4-H Club research project. As you know from earlier correspondence, this project involves preparing training materials for adult 4-H leaders. To evaluate these materials, however, we need to develop some examinations about 4-H activities. You are one of 300 adult leaders having agreed to help us by taking some experimental versions of test items. These items are enclosed.

Directions

Answers to the test questions are to be recorded on the separate answer sheet -- not on the test booklet. Simply read the question on the booklet, note the answer you think is correct, then find and mark your choice on the answer sheet. ANSWER ALL ITEMS EVEN THOUGH YOU MUST GUESS IN ORDER TO DO SO. You need not put your name on the answer sheet since each set of materials is numbered and we know to whom each set was sent. Your responses are for research purposes only and will be kept completely confidential. In fact, we do not intend to identify anyone as an individual when we tally the responses to the questions. Do not worry about the questions -- we know that some are difficult and that others cover rather insignificant points. Simply do your best and then return the materials as soon as possible.

Appreciation

We sincerely appreciate your cooperation on this project. As an expression of our appreciation we are sending you a set of the training materials when they are completed -- hopefully by June, 1968. Thanks again.

PLEASE COMPLETE THE TEST AND
RETURN THE ANSWER SHEET ONLY AS SOON AS POSSIBLE

(IT USUALLY TAKES ONLY 45-60 MINUTES)

A

Pre-Test for Adult 4-H Leaders

INSTRUCTIONS: You are to record your answers on the answer sheet provided. Notice that for each item there are four letters, a, b, c, and d, which designate the four possible responses to each statement or question presented in this test. You are to circle the lettered response which you feel correctly completes or answers each item. Be sure that the number of the question on the answer sheet corresponds to the same number on the test before marking your choice.

1. Demonstrations and panels are examples of what type of resource?
    a) human
    b) audio-visual
    c) group activities
    d) printed materials

2. For any one project it is advisable to
    a) stick to the same resource
    b) use different resources
    c) not use "people" and other resources together
    d) let the members choose the type of resource

3. The development of the Resource Record is
    a) time-consuming at first
    b) independent of local news media
    c) the responsibility of the members
    d) unnecessary for clubs in small towns

4. People who can secure facilities or things are those who are grouped together because of
    a) communication
    b) skills
    c) prestige
    d) motivation

5. It is advisable to match a resource person to the
    a) leader who will orient him
    b) members he will assist
    c) level of knowledge of the group
    d) type of task to be performed

6. Basic guidelines for selecting resource material do not include evaluation of
   a) understanding level
   b) accuracy
   c) emotionality
   d) biases

7. In orientation of resource people, emphasis is place on the ________________ of the job for the resource person.
   a) expectations
   b) motivations
   c) requirements
   d) status

8. The orientation process for the resource person should usually be accomplished by
   a) group meetings
   b) parent contacts
   c) individual contacts
   d) personal letters

9. In those situations where people are working together cooperatively, we usually observe
   a) unstructured goals
   b) an absence of a time budget
   c) an openness of communication
   d) a strong and helpful leader

10. In the development of resources the use of recognition should be
    a) a continuous process
    b) limited to leaders
    c) supported by parents
    d) a multi-stage process

11. Leaders may use the evaluation process as a means of determining strong and weak points as a means of determining areas of needed improvement and as a means of
    a) program analysis
    b) self-analysis
    c) member participation
    d) parent cooperation

12. Which one of the following is not a way of relating 4-H clubs to the community?
    a) interest
    b) geographical boundary
    c) authority
    d) influence

13. The goals that 4-H members want to achieve are based upon
    a) community needs
    b) the members' interests and needs
    c) parental needs
    d) the needs of society in general

14. 4-H club leaders should
    a) employ as many people as possible in the community to develop an active education program with youth
    b) be able to work independently of other people in the community to develop an active education for youth
    c) use only the interested members of the community for developing 4-H club programs
    d) employ county extension agents to develop and administer 4-H programs in the community

15. The 4-H club leader, in involving community members in working on 4-H club projects, should
    a) pay those people for services rendered
    b) try to recruit them as 4-H club leaders
    c) involve them in the planning of the projects
    d) let them decide on the projects needed

16. 4-H club leaders should
    a) encourage other youth organizations to participate in activities with the 4-H clubs
    b) not encourage 4-H clubs to participate on projects with other youth organizations
    c) join forces with other youth groups only for civic projects
    d) avoid duplication of activities with other youth organiations

17. The best source of adult leaders is
    a) parents
    b) single men and women
    c) civic organizations
    d) college students

18. Membership in 4-H clubs helps insure emotional stability by providing
    a) the proper education for youths
    b) moral guidance for youth
    c) a feeling of belonging to the group
    d) the proper social outlet for youth

19. What characteristic of a 4-H leader makes him a valuable person in the community?
    a) teaching ability
    b) interest in youth
    c) status in the community
    d) interest in community problems

20. 4-H leaders should not
    a) be unacquainted with other youth leaders
    b) use the county extension agent for information
    c) involve the community in his work
    d) use exactly the same resources as other communities do

21. 4-H members may improve their projects by
    a) inviting other groups to join them
    b) limiting them to established 4-H goals
    c) involving less people and thus less red tape
    d) asking for more leader guidance

22. The 4-H club's
    a) influence depends upon the size of the club
    b) influence can be felt by only the geographic area in which it is located
    c) support is the responsibility of the people in the community
    d) success depends upon the acceptance by the community

23. A leader can expect the 4-H members to
    a) respond positively to recreational activities
    b) respond differently in any given situation
    c) behave better when negatively rewarded
    d) behave in a similar manner in most situations

24. To help members learn or change, 4-H leaders should develop the skill of
    a) letting members handle their own projects and helping only when asked
    b) formulating a basic pattern of activity for all members
    c) discovering what factors in a given situation are influencing behavior
    d) discovering the basic personality patterns of the members

25. When a 4-H member has only limited access to necessary information
    a) he should be discouraged from depending on the leader
    b) the project should be dropped so as to not bring about failure
    c) he is having his initiative blocked
    d) other members should be aware of the situation

26. A child's self-concept develops most rapidly when he
    - a) learns to walk and manipulate objects
    - b) learns to talk and understand language
    - c) begins to interact as a social being
    - d) values the opinions of peers

27. The core of a person's self-concept is
    - a) feedback from others
    - b) basic need patterns
    - c) self-image
    - d) basic personality patterns

28. Traditional American culture emphasizes
    - a) competition between youths at the expense of intimacy
    - b) intimacy during the teen years
    - c) dependence on youth until they reach their twenties
    - d) cooperation and social interaction among youth

29. A child of four or five tries to find out as much as possible without feeling guilty. Parents and adult leaders should
    - a) give him as much freedom as possible, being consistent about their limits
    - b) make him realize his responsibilities to society by restraining him
    - c) satisfy each need and curiosity as soon as it is manifested
    - d) control him as much as possible, teaching social rules

30. A person in later lafe
    - a) cannot change his basic self-concept
    - b) should be able to accept himself and his role in life
    - c) can no longer develop feelings of intimacy and integrity
    - d) usually wishes he could relive his life

31. Incentives to motivate 4-H members
    - a) should not be obvious to the members
    - b) should conform to 4-H manual rules
    - c) may be varied to fit each individual
    - d) should not vary with each individual

32. Members learn best
    - a) when motivated by success
    - b) when given extrinsic rewards
    - c) with rote methods of teaching
    - d) when promised latent rewards

33. Efficient learning takes place when
    a) intense as opposed to moderate motivation is employed
    b) motivation by punishment is used as opposed to motivation by reward
    c) failure is used to motivate mature members
    d) the reward or punishment is an inherent aspect of the learning situation

34. In considering the period of life known as youth
    a) a large percentage of people traverse this period without serious difficulty
    b) a significant portion of youth (about 30%) become either juvenile offenders or social dropouts
    c) a large percentage of people passing through this stage (about 20%) become active rebels
    d) the factor of individual differences makes it hard to arrive at any conclusion during this period

35. One of the major problems confronting parents and youth leaders about youth is
    a) finding activities in which youth can channel their energies into, so as to prevent socialy deviant behavior
    b) obtaining a clear understanding of why youth rebel against society
    c) finding reasons behind individual differences in youth
    d) obtaining an understanding of what is normal behavior and what is deviant behavior

36. An important fact for 4-H leaders to keep in mind is that youth of the same chronological age
    a) only vary slightly in maturity
    b) can vary as much as three years in maturity
    c) only vary about a year or two in maturity
    d) can vary as much as six years in maturity

37. The constitution of a youth refers to his
    a) total physical makeup at any one time
    b) ability to withstand physical and emotional stress
    c) basic hereditary pattern uninfluenced by environment
    d) basic image of himself

38. Research comparing personality differences of late as compared to early maturing adolescents shows that
    a) childish attention-getting techniques are constant for adolescents regardless of maturity level
    b) early maturing adolescents show childish attention-getting techniques mainly to attract persons of the opposite sex
    c) late maturing boys often use childish attention-getting techniques to compensate for their small size, compared with early-maturing males
    d) childish attention-getting techniques are used significantly more often for girls than for boys

39. The physical makeup of the person is
    a) mainly a product of heredity
    b) mainly a product of the environment
    c) the product of the joint influences of heredity and environment
    d) mainly the product of unknown influences

40. Roles can be defined as
    a) the masks people hide behind when they interact in various groups
    b) patterns of behavior that we expect certain people to engage in according to the position they occupy
    c) the particular kinds of activities that a particular person engages in within a certain group
    d) the formal assignment and acceptance of a particular position by an individual in a group

41. 4-H can help youth
    a) avoid serious role conflicts
    b) enjoy the friendship of peers
    c) gain a sense of self-identity
    d) all of the above

42. Individual differences in youth are fostered to a great extent by
    a) accidental happenings
    b) peer group influence
    c) family relationships
    d) school influences

43. Similarities and differences in personality can be accounted for by
    a) studying separately the determinants of personality formation
    b) relating the determinants of personality formation to certain standardized personality tests
    c) studying together the determinants of personality formation
    d) an extensive study of the constitutional determinants of personality

44. When we compare masculine roles today as compared to 50 years ago we see
    a) that physical stamina remains just as important a concept for the masculine role
    b) status brought about largely by the mastery of intellectual and social skills as the important factor in the masculine role
    c) the masculine role is becoming increasingly differentiated from that of the feminine role
    d) b and c above

45. The most important group in the growth and development of children from pre-adolescence through post-adolescence is
    a) the 4-H club
    b) the church
    c) the peer group
    d) the parents

46. The most important goal-related activity of adolescence is
    a) gaining acceptance from peer groups
    b) engaging in social activities
    c) striving for role fulfillment
    d) the searching for self-identity

47. The most effective way to support a project is not based upon the
    a) individual's civic responsibility
    b) nature of the project
    c) objective of the project
    d) individual's peer responsibility

48. Often the most effective way for an individual to support a project is to
    a) assume total responsibility for the project
    b) study previous projects in the 4-H manual
    c) work with others on a committee
    d) gain community support for the project

49. Who is responsible for providing an opportunity for young people to learn to be effective citizens in a democratic society?
    a) national 4-H
    b) 4-H members and leaders
    4-H parents and members
    d) 4-H leaders

50. Demonstrations, judging and group projects
    a) are extremely good 4-H learning tasks
    b) should not be used with very young members
    c) should be the responsibility of the leader
    d) should not be used simultaneously

51. All 4-H demonstrations
    a) should include a summary
    b) should be conducted by the leader
    c) vary widely with the nature of the club
    d) should be conducted by two or more members

52. 4-H judging should not be
    a) a matter of right and wrong
    b) used in very small groups
    c) encouraged with younger members
    d) stress standards for products

53. Boys and girls who join 4-H expect to learn from it because 4-H is
    a) a continuation of school programs
    b) under the direction of peers
    c) a program for youth
    d) an educational program

54. Initial information about 4-H demonstrations
    a) allows members to make generalizations about demonstrations
    b) should not be generalized to specific demonstrations
    c) should be secured from the leader
    d) varies widely with the location of the club

55. The primary result of learning is
    a) a sense of accomplishment
    b) a feeling of competence
    c) a quest for more knowledge
    d) a change in behavior

56. Systematic planning of the 4-H program
    a) is the total responsibility of the group leader
    b) is needed to provide a balance of activities
    c) should take place during the 4-H year
    d) all of the above

57. The local 4-H club program may be defined as the sum total of
    a) educational efforts
    b) recreational activities
    c) community services
    d) vocational experiences

58. It is necessary that 4-H program developers have a knowledge of broad objectives because
    a) broad objectives define member needs and interests
    b) national officials set broad objectives as the criterion for 4-H programs
    c) situational information should be examined with broad objectives in mind
    d) broad objectives vary widely with geographical location

59. Community information includes information about
    a) family customs
    b) location of members' homes
    c) employment opportunities
    d) work habits of members' parents

60. Once the program designer selects problems to solve and arranges the order of priority, he
    a) is ready to establish objectives
    b) should submit the list to the members
    c) should consult the regional program designer
    d) all of the above

61. To be most useful, program objectives should not
    a) be drawn up prior to the establishment of problems
    b) indicate specifically who is to do the learning
    c) define a level of change to be achieved
    d) structure the 4-H program

62. A 4-H program can best be evaluated by
    a) allowing the 4-H members to judge their own behavior
    b) comparison to regional criteria
    c) a combination of tests and the leader's judgment
    d) a combination of the leader, parents and members

63. In planning the 4-H program
    a) members, parents, leaders and all interested people should be involved
    b) the leader should draw up initial plans before conferring with parents and members
    c) member involvement is favored over parental involvement
    d) only the members should be involved except with very young groups

64. Younger members are most enthusiastic about activities involving
    a) outdoors
    b) peers
    c) school-related topics
    d) parents

65. A major criticism of exhibit judging is that judging fails to consider
    a) progress
    b) end results
    c) contributions
    d) interest

66. 4-H club meetings do not help members to
    a) learn new information about agriculture
    b) develop social skills
    c) develop leadership traits
    d) learn self-defense

67. The____________should check on the progress of committees.
    a) parents
    b) leader
    c) officers
    d) 4-H members

68. Committees are most useful when they are
    a) properly supervised
    b) used infrequently
    c) not too large
    d) left on their own

69. Each officer should receive training and encouragement from the
    a) leader
    b) parents
    c) members
    d) other officers

70. Regular club meeting should be held
    a) at least once a month
    b) not more than once a month
    c) at least twice a month
    d) not more than twice a month

71. The club members should help plan and conduct the program themselves, their leader should
    a) leave them on their own
    b) direct the officers
    c) act as their guide
    d) be elected by the members

72. 4-H learning is unique largely because it is
    a) learning by doing
    b) learning by seeing
    c) taught by demonstration
    d) fun

73. One of the steps in a demonstration is not
    a) planning
    b) try out
    c) testing
    d) revision

74. 4-H club demonstrations
    a) consist of four parts
    b) should be given by the leader
    c) include an introduction
    d) are poor as teaching devices

75. Team members for a team demonstration should
    a) be of opposite sex
    b) be matched on age
    c) always practice alone
    d) be selected at random

76. Discussions in 4-H club meetings are
    a) poor learning devices
    b) good methods for developing competition
    c) better for larger groups
    d) especially suited to senior members

77. To improve the instruction session of the club meeting
    a) emphasis is on student reports
    b) any good teaching method may be utilized
    c) discipline is necessary
    d) parents may act as teachers

78. Each club meeting should have some _______________ games.
    a) educational
    b) sedate
    c) group
    d) active

79. It is no longer possible to predict with reasonable accuracy the
    a) types of young people who will respond to the 4-H program
    b) qualities that you will need for successful living
    c) effect that education will have upon the youth of today
    d) reactions of young people to today's technological society

80. Today more emphasis is being placed on
    a) the development of personality, attitudes and values
    b) the acquiring of information and specific skills
    c) specialized education to fit the needs of society
    d) youth's ability to adjust to new and complex situations

81. The most unique feature of 4-H today is concerned with
    a) drawing workers and members from university students
    b) condensing subject matter into concise understandable form
    c) combining all age groups profitably
    d) the subject matter resources of the universities of which 4-H is a part

82. Dr. Margaret Mead said of youth:
    a) they need to discover how very wide the range of choice really is
    b) they need to discover how very important the selection of occupations really is
    c) they need to choose from a wide range of experiences to be satisified
    d) they need to widen their range of experiences to discover themselves

83. The 4-H program provides natural situations which help members
    a) show what they can do under difficult circumstances
    b) learn what youth can contribute to the educational process
    c) understand, accept, and work with persons different from themselves
    d) gain experience in competing and interacting with youth from diverse backgrounds

84. 4-H projects cannot provide
    a) real life experiences for youth in many areas
    b) on the job training for some members
    c) work experiences in social adjustment
    d) learning experiences matched to school lessons

85. The study of, and member relations to, particular jobs
    a) are second in importance to members' actual job performance
    b) can be enlivened by trips to actual business organizations
    c) is the difference between 4-H and similar youth organizations
    d) is in a constant state of flux due to the change in society

86. The subject matter, methods, and learning experiences used in 4-H
    a) emphasize special areas of instruction
    b) allow members to specialize
    c) are unique to 4-H organizations
    d) facilitate integrated learning

87. A 4-H member working on a project
    a) must concentrate on a specific approach to be successful
    b) gains information by testing different alternatives
    c) should complete his assignment without any outside help
    d) should develop one method of inquiry

88. An appreciation for the scientific method of inquiry is
    a) an essential requirement for 4-H projects
    b) not necessary in most 4-H projects
    c) developed by requiring a specific scientific approach for each project
    d) developed by testing different alternatives

89. 4-H complements, supplements, and reinforces all other educational sources by
    a) relating all learning to professional opportunities
    b) relating all learning to real life
    c) concentrating on federal and state legislation
    d) making mature adults of immature young people

90. 4-H methods
    a) are used by all other successful youth organizations
    b) are based on an understanding of individual youth
    c) stimulate curiosity and the attitude of inquiry
    d) take a great deal of learning before being mastered

91. To reach the highest potential educational values of 4-H leaders must
    a) rely upon their intuition and personal experience to bridge the age and educational gap
    b) be prepared to deal effectively with any subject in which members show an interest
    c) be expert in many different fields in order to meet the needs of both individuals and groups
    d) skillfully blend subject matter, methods, experiences, and relationships with individuals and groups

92. The objective of 4-H teaching methods is to
    a) allow members to change attitudes
    b) provide peer interactions
    c) instill Christian principles
    d) provide a "fun atmosphere" of learning

93. The three categories of teaching methods used by 4-H leaders do not usually include
    a) group teaching methods
    b) field trip teaching methods
    c) individual help teaching methods
    d) visual-oral teaching methods

94. Problem solving in a group
    a) should not be used formally in teaching project information
    b) may be used informally whenever a group of members are to make a decision
    c) entails the unrehearsed acting out of a problem situation which concerns the group
    d) should not be used with younger 4-H members

95. The acting out of a problem or important point concerning 4-H is an example of
    - a) the buzz session
    - b) dramatization
    - c) role playing
    - d) demonstration learning

96. Information to be taught in 4-H workshops
    - a) should include the acquisition of a physical skill
    - b) should be restricted to one or two main points of emphasis
    - c) may be as broad as the members and situation dictate
    - d) should be selected by the leader before he assigns members to the workshop

97. A leader or member making or doing something while explaining why he does it, is an example of
    - a) role playing
    - b) workshops
    - c) demonstrations
    - d) action teaching

98. Trips which teach about something outside of the home community are
    - a) project tours
    - b) excursions
    - c) exhibit trips
    - d) 4-H service trips

99. The most important learning experience in judging is
    - a) ability on the part of the members to accept failure
    - b) member's oral report comparing placements
    - c) member interaction in a competitive selling
    - d) member's judging of peers on fair standards

100. The success of a 4-H learning experience depends upon
    - a) the personality of the leader and interests of the members
    - b) the acceptance of the club by parents and the community
    - c) selection and use of the best teaching method
    - d) member motivation and goals set by members

B

Pre-Test for Adult 4-H Leaders

INSTRUCTIONS: You are to record your answers on the answer sheet provided. Notice that for each item there are four letters, a, b, c, and d, which designate the four possible responses to each statement or question presented in this test. You are to circle the lettered response which you feel correctly completes or answers each item. Be sure that the number of the question on the answer sheet corresponds to the same number on the test before marking your choice.

1. The secret of community leadership is most accurately described as
   a) finding outstanding people
   b) development of a pattern of cooperative effort
   c) effective supervision by the leader
   d) obtaining the aid of local office-holders

2. Leadership development is a step-by-step process and in 4-H it frequently starts with
   a) assuming a resource person's responsibility
   b) the first time a person is in the right social climate
   c) asking the person to be a leader
   d) being able to do something better than someone else

3. Which of the following is a "source for resources"?
   a) city council
   b) leader
   c) junior leader
   d) members

4. The Resource Record is a file of
   a) specific persons
   b) specific resources
   c) potential resources
   d) resource people of proven worth

5. Resource people can be conveniently grouped into three types on the basis of
   a) communication, prestige and income
   b) prestige, status and communication
   c) communication, prestige and skills
   d) skills, status and prestige

6. The person requesting the help of a resource person should
   a) be the 4-H leader
   b) be the 4-H member
   c) allow him to choose his own task
   d) have adequate information about the task

7. The key factor for the leader in establishing good working relationships with resource people is
   - a) a sensitivity to oneself
   - b) an emphasis on communication
   - c) an understanding of the resource person
   - d) a highly effective motivation

8. Good supervision of resource people requires them to
   - a) study
   - b) direct
   - c) participate
   - d) lead

9. In regard to his supervisory role, the leader must understand resource people as
   - a) equals
   - b) individuals
   - c) professionals
   - d) humanists

10. The elements in an overall program of training/supervision do not include
    - a) study of basic purpose of 4-H
    - b) definition of resource needs
    - c) planned conferences with resource people
    - d) professional evaluation of resource people

11. Evaluation of the resources used by the 4-H club
    - a) is usually unnecessary
    - b) is the members' responsibility
    - c) is always necessary
    - d) should be sent to national 4-H

12. The primary goal of a 4-H leader is to
    - a) develop a sense of moral value in youth
    - b) give youth guidance in making decisions and in becoming responsible citizens
    - c) train youth in the essentials of agriculture
    - d) give youth a sense of responsibility in caring about the community

13. A 4-H club can best be identified by the
    - a) geographic area within which the members live
    - b) influence that the members exert upon the community
    - c) kinds of projects the 4-H members engage in
    - d) characteristics that the 4-H leaders possess

14. A community of interest in 4-H activities can be formed by
    a) 4-H members
    b) 4-H leaders
    c) 4-H parents
    d) all of the above

15. 4-H club work is designed so that
    a) the club can run in a manner fairly independent of the community
    b) people in the community are responsible for the club under the guidance of adult leaders
    c) county extension agents can select 4-H club leaders
    d) parents of 4-H club members play the major role in the running of the club

16. County Extension Agents
    a) select the leaders for 4-H clubs
    b) plan the various types of projects 4-H members can engage in
    c) provide training and general information to 4-H club leaders
    d) guide the parents in their club responsibilities

17. The foundation for the success of 4-H lies in the
    a) selection of intelligent 4-H leaders
    b) relationship of the 4-H leader to other people in the community
    c) parents agreeing upon the selection of the leader
    d) relationship of the 4-H leader to the county extension agent

18. All the leaders of a 4-H club should
    a) work together as a team in developing projects
    b) work on different aspects of the program
    c) include the people of other communities in the developing and executing of plans
    d) advise state officials of the development of 4-H club projects

19. The best way of bridging the gap between the 4-H club and the community is to
    a) inform the community of 4-H club projects
    b) inform the community of the wide purpose of 4-H
    c) help improve the community in some way
    d) gain national recognition for 4-H club projects

20. The best overall qualification for a 4-H leader is
    a) intelligence and personality
    b) understanding and tolerance
    c) ability to organize activities
    d) interest in young people

21. The 4-H leader should
    a) be selected within the community
    b) be selected by the members
    c) not be selected without training in 4-H leadership
    d) not be under 30 years of age

22. 4-H leaders should remember that
    a) more can be accomplished when less people are involved
    b) people of the community will support the club if they are aware of its function and see its community contributions
    c) the responsibility of developing and executing plans rest solely in their hands
    d) the community should be represented at all meetings by a committee

23. Concerning human motivation and perception
    a) many people behave in ways that do not make sense to them
    b) an individual's needs usually remain constant over time in influencing behavior
    c) a person's perception of the situation influences his behavior in that situation
    d) behavior is influenced by motivations which remain constant across one age group

24. In understanding and working with others, the 4-H leader should focus on the aspects of the
    a) intellectual difference between individual members
    b) parental influences relating to the individual and the home
    c) individual, the situation, and their interactions
    d) the parents, the individual, and the community

25. By changing the person himself, and/or altering the situation, the 4-H leader can
    a) elicit similar behavioral responses
    b) bring about a behavioral change in a person
    c) overcome cultural differences among the members
    d) control the member's behavioral patterns

26. The meaning of a given situation to a person
    a) gives direction to his behavior
    b) remains constant through time
    c) is controlled by peer group influences
    d) all of the above are true

27. A learner is more apt to experiment and explore when
    a) the setting guarantees success
    b) the leader structures the learning situation
    c) he is left alone to formulate his own questions
    d) the setting tolerates failures

28. The 4-H leader can resolve potential conflict between himself and the members by
    a) recognizing how the member views a situation and how the view differs from his own
    b) trying to change his adult viewpoint to that of the members
    c) investigating factors in individuals' backgrounds which make them behave as they do
    d) trying to judge each member's behavior according to fair, established criterion

29. The feelings and perceptions one has of his own body, its nature and limits,
    a) seldom conforms to reality
    b) is called the body-image
    c) does not influence actions after six years of age
    d) is called the self-concept

30. An infant's basic sense of trust
    a) is essential to developing a healthy self-concept
    b) is the first human emotion to be experienced
    c) must be diminished by the time he reaches adulthood
    d) is developed when he becomes aware of his environment

31. The feeling in a child that he is an adequate human being, self-reliant but able to use help, should be developed by
    a) the time he reaches his teens
    b) about the sixth year
    c) about the second year
    d) before he can trust his environment

32. A child's motivation to learn is the highest when
    a) the material is geared above the child's level creating a challenge
    b) the material is geared below the child's level preventing a feeling of failure
    c) the child can see the relationships between the activity and the goal
    d) the child is not allowed to view his progress and join in competition

33. The worst effect on immediate and later learning is brought about by
    a) general punishment
    b) undeserved praise
    c) condemnation
    d) ignoring the learner

34. The age range of youth is generally accepted as being
    a) 12 to 17 years of age
    b) 10 to 20 years of age
    c) 13 to 21 years of age
    d) 12 to 19 years of age

35. A major difficulty in trying to analyze youth behavior is
   a) the inability of youth to communicate their true feelings to adults
   b) the times in which we live make youth behavior vastly more unpredictable than in the past
   c) individual differences; i.e., no two people grow and develop alike
   d) most parents and youth leaders do not take the necessary time to do an effective job

36. Geneticists today generally agree that all traits are
   a) inherited
   b) not inherited
   c) a product of environmental influence
   d) not a product of environmental influence

37. The influence of environment upon the constitutional makeup of the person can best be explained by
   a) proper nutrition
   b) peer group influences
   c) proper climate
   d) physical exercise

38. One of the major challenges confronting youth with respect to roles is
   a) in the identification of role situations
   b) in the formation of roles
   c) to avoid role confusion
   d) to know when to change roles

39. 4-H leaders need to understand that many roles of adolescents
   a) are hard to comprehend
   b) remain constant throughout most of life
   c) are not accepted by adults
   d) are soon outgrown

40. 4-H leaders should recognize
   a) that young people have established a firm sense of self-identity by the 16th year
   b) what roles are available for youth to assume
   c) what roles are expected for youth by the different adult and youth groups
   d) all of the above

41. The strongest pressures upon today's teenager comes from
   a) parents who want their children to project a good image reflecting parental status
   b) schools which reward excellence in all courses
   c) peers pushing youngsters into precocious patterns of conformity and sophistication
   d) within the teenager himself as he tries to satisfy his own push to maturity

42. The end of pre-adolescence occurs when
    a) peer involvements sharply increase in importance
    b) dating begins
    c) biological maturity is reached
    d) parental rejection begins

43. Increased preference for peer activities as opposed to parent-child activities on the part of the pre-adolescent is a reflection of
    a) a negativistic period on the part of the child that should be ignored by the parents
    b) a striving for independence and emancipation from the home
    c) an abnormal part of the pre-adolescent developmental process
    d) pressures induced by the educative process for conformance by the child

44. 4-H clubs reach their peak in membership
    a) at the beginning of the pre-adolescent period
    b) at the end of the pre-adolescent period
    c) during the period of adolescence
    d) during the post-adolescent period

45. The easiest time to enroll youngsters in 4-H clubs is when
    a) they are most susceptible to the guidance of adult leaders
    b) contacts with the opposite sex are being developed
    c) friends of the same sex are becoming increasingly important to them
    d) they are beginning to reject their parents

46. In general, it can be stated that
    a) adolescents desparately need and want adult guidance
    b) adult guidance will hinder adolescents in their struggle for independence
    c) adolescents generally do not want adult guidance
    d) adolescents are ambivalent about their need for adult guidance

47. The 4-H learning experience is designed to
    a) supplement education from other sources
    b) strengthen and broaden education from other sources
    c) provide experiences similar to home and school
    d) broaden the education of exceptional students

48. Choice of an objective to achieve in 4-H always depends upon
    a) the unique situation
    b) community needs
    c) national 4-H objectives
    d) members' needs

49. For a 4-H project to achieve its goal, it must be directly and effectively supported by the
    a) members and parents
    b) leaders and members
    c) community
    d) members

50. The main purpose of a 4-H learning experience is to teach young people
    a) knowledge
    b) responsibility
    c) cooperation
    d) respect

51. 4-H members should undertake three aspects of the objective or project. These are
    a) conferring, selecting and producing
    b) selecting, supporting and leading
    c) responsibility, producing and evaluation
    d) initiative, deciding and supporting

52. As a result of giving, observing and discussing demonstrations, members
    a) change their ideas and understanding
    b) increase their ability
    c) learn to think, feel and act differently
    d) all of the above

53. All aspects of the 4-H project are the responsibility of
    a) the leaders and members
    b) the leaders and parents
    c) the leaders
    d) the members

54. The 4-H leader plays which three roles in 4-H learning experiences?
    a) initiative, control, anything else
    b) guidance and control only
    c) initiative, guidance and anything else
    d) guidance and initiative only

55. Information about needs and interests of members as well as information about the community comprises ______________ information
    a) situational
    b) broad objective
    c) physical
    d) program

56. Information about boys and girls shows children of the same age vary most in
  a) preference for gangs
  b) interest spans
  c) motivational aspects
  d) emotional makeup

57. Local 4-H programs should vary from community to community because of
  a) the membership size
  b) differences between boys and girls
  c) community customs
  d) extent of acceptance

58. The level of change which takes place in knowledge, understanding, or ability as a result of the 4-H program
  a) is highly individual and impossible to measure
  b) should be indicated by the program objective
  c) is approximately the same for boys and girls of one age group
  d) shows a great variance within one age group due to sex differences

59. When members participate, learning opportunities provide the environment for
  a) situational information
  b) learning experiences
  c) group interaction
  d) member's projects

60. The 4-H program is evaluated by
  a) determining the degree of participation in terms of group projects
  b) determining the progess of the 4-H members in terms of the objectives
  c) administering achievement tests at the beginning and end of the 4-H year
  d) comparing the program to those of other local and national 4-H clubs

61. Judging of 4-H member projects
  a) is the best method of program evaluation
  b) is one way to review each member's progress
  c) makes allowances for initial variation in the members
  d) considers only the end result of the program

62. In 4-H terms, learning experiences are mainly concerned with
  a) interaction
  b) situations
  c) motivation
  d) interest

63. For groups of younger 4-H members
    - a) members should have no part in the program planning or selection of activities
    - b) members should be able to choose from several activities drawn up by parents and leaders
    - c) the leaders should plan the program and present it in an interesting way to the members
    - d) parents should be active only "behind the scene"

64. Lists of problems, objectives, and progress evaluations in program planning
    - a) help establish order in planning procedures
    - b) should be the responsibility of each member
    - c) should be prepared by the leader and submitted to parents and members
    - d) are more unnecessary in small clubs

65. The following cannot usually be said about youth around ten years of age.
    - a) they have leadership ability
    - b) they accept rules and regulations
    - c) they are easily motivated
    - d) they have a short interest span

66. 4-H club meetings should be conducted in an orderly manner. This is the responsibility of the
    - a) leaders and members
    - b) members and officers
    - c) parents and officers
    - d) leaders and officers

67. 4-H club officers are
    - a) elected by the members
    - b) appointed by the leader
    - c) approved by the parents
    - d) always older members

68. Casual seating in the 4-H club meeting
    - a) promotes participation
    - b) prevents orderliness
    - c) reduces efficiency
    - d) encourages competition

69. Proper regalia in the 4-H meeting does not create
    - a) a spirit of belonging
    - b) an air of expectancy
    - c) an atmosphere of importance
    - d) a consciousness of authority

70. The well planned program for the meeting should be balanced between business, recreation and _______________.
   a) demonstration
   b) prayer
   c) participation
   d) instruction

71. Which of the following parts of the meeting should occupy the greatest amount of time?
   a) business
   b) instruction
   c) recreation
   d) observation

72. In reference to the business meeting, complicated business problems should be
   a) left to the officers
   b) handled by the leader
   c) settled by the parents
   d) referred to committees

73. In the 4-H club meeting
   a) parliamentary procedure is necessary
   b) the business portion should be as short as possible
   c) business matters should not be discussed
   d) business matters should be hendled by the officers

74. In selecting a topic for a demonstration
   a) choose one that the members are not familiar with
   b) the topic should incorporate several ideas
   c) the topic should be suited to the occasion
   d) the leaders should have the final say

75. The role of the leader in successful demonstrations should be
   a) helping
   b) controlling
   c) presenting
   d) advising

76. In preparing for a demonstration at a 4-H meeting
   a) members may help the leader prepare
   b) the leader should make all the necessary preparation
   c) all members should help in some way
   d) older members should prepare the demonstration

77. Discussion topics should be
- **a) clearly defined**
- **b) a challenge to thinking**
- **c) quite limited in scope**
- **d) those the members agree on**

78. In serving refreshments at club meetings, the prime concern is to
- **a) raise money for the club**
- **b) provide a break in the program**
- **c) provide a learning experience**
- **d) teach the members table manners**

79. The overall purpose of education is to give youth the
- **a) competent and responsible guidance that comes only from education and experience**
- **b) necessary experience to develop the qualities needed for successful living**
- **c) knowledge, skills, and experience needed to become competent, responsible adults**
- **d) chance to express themselves in order to develop the skills necessary for successful living**

80. Research and technology tend to
- **a) make specialized information and skills a necessity for successful living**
- **b) emphasize the gap between high and low level job opportunities for today's youth**
- **c) give greater importance to the technical rather than the social aspects of successful living**
- **d) make information and skills obsolete in a relatively short period of time**

81. Education has the purpose of
- **a) helping youth acquire the information and specific skills necessary for successful living in new, complex situations**
- **b) teaching young people how to function adequately in today's complex, technically oriented society**
- **c) preserving the individual in spite of the pressures exerted by today's technically oriented society**
- **d) helping youth become intelligent behavers and achieve successful living in new, complex situations**

82. Federal and state legislation
- **a) are in conflict on the administration of Cooperative Extension**
- **b) must both be enacted in order to establish Cooperative Extension**
- **c) are necessary for the legal establishment of a cooperative**
- **d) provide the legal basis for "Why 4-H"**

83. The question, "Why 4-H?" today
    - a) can be answered by the 4-H program alone
    - b) cannot be answered by legislative mandate alone
    - c) can be answered by 4-H contributions to education
    - d) must be answered in the light of past accomplishments in 4-H

84. To be accepted, any program must continually
    - a) be updated to meet the standards required for federal and state support
    - b) cooperate with other youth-serving groups in meeting legislative standards
    - c) earn respect and support by meeting new situations and needs
    - d) adjust to current trends in order to interest young people in participating

85. Research is necessary to
    - a) understand how 4-H differs from other youth groups
    - b) identify weak areas and add new subject matter
    - c) give justification for federal and state support of 4-H
    - d) show that 4-H is a progressive, well-informed organization

86. Many situations require
    - a) a wide range of choices in order to make intelligent decisions
    - b) previous experiences in order to function intelligently in them
    - c) a narrow range of experiences in order not to confuse the issues
    - d) people, ideas, places and things before a decision is made

87. The identification and development of latent leadership has been called
    - a) a condition that benefits all mankind
    - b) the greatest contribution of 4-H
    - c) the real purpose of education
    - d) the real task of any youth group

88. Concepts and principles of leadership learned through 4-H develop
    - a) the ability to get merit respect
    - b) abilities unique to 4-H
    - c) leadership qualities in all members
    - d) positive attutudes toward the accepting of responsibility

89. The 4-H programs effectively integrate the learning of skills and information
    - a) to produce an individual who can perform in any job situation
    - b) with the development of attitudes of critical thinking
    - c) with the development of personality, attitudes and values
    - d) so that its members are prepared to contribute to any area of education

90. 4-H projects enhance the member's confidence in his abilities and
    - a) develop attitudes and values which contribute to personality adjustment
    - b) assure him proficiency in a specialized area of endeavor
    - c) make him ready to compete successfully in his chosen profession
    - d) develop his ability to influence his friends in other youth organizations

91. 4-H will merit respect and support as an educational program
    - a) if it meets the standards set up by federal, state, and local government
    - b) if its members recognize the adjustments necessary to meet new situations
    - c) if it can offer areas of instruction not found in any other organization
    - d) only when it has achieved the status of an official educational organization

92. A 4-H teaching method does not depend upon
    - a) the leader's ability to create a good learning climate
    - b) members' familiarity with the proposed teaching method
    - c) leader's understanding of the teaching-learning process
    - d) the subject matter to be taught

93. The 4-H leader can create a proper climate for teaching-learning by
    - a) maintaining proper authority
    - b) accepting each member as an individual
    - c) not probing into the private lives of members
    - d) maintaining an academic atmosphere

94. In the group discussion method,
    - a) the total group is divided into buzz sessions of six and eight members
    - b) more can be achieved when the total group is small
    - c) the leader should not have to supervise or direct the buzz session
    - d) independent research is necessary before the members can report back to the group

95. To conduct an effective workshop
    - a) the length of the workshop will depend upon the subject only
    - b) the workshop should employ as little leader teaching as possible
    - c) the teacher should demonstrate each step of the project
    - d) each member should be allowed to demonstrate a step of the project

96. An effectively planned workshop should
    - a) explain "why"
    - b) show "how"
    - c) encourage questions
    - d) all of the above

97. Exhibits are
   a) educational displays which present several 4-H aims
   b) displays of individual articles made by 4-H members in their projects
   c) displays of awards won by 4-H members
   d) educational displays which present one focal idea

98. The demonstrator should emphasize the importance of his demonstration to the members in the
   a) body of the demonstration
   b) outline of the demonstration
   c) summary of the demonstration
   d) introduction of the demonstration

99. 4-H members can increase knowledge, learn to use information in making decisions and learn to communicate with others best through
   a) field trips
   b) judging
   c) demonstrations
   d) projects

100. A method of recognition of 4-H club individual members may be
   a) group discussion
   b) illustrated talks
   c) role playing
   d) project tours

Pre-Test for Adult 4-H Leaders

INSTRUCTIONS: You are to record your answers on the answer sheet provided. Notice that for each item there are four letters, a, b, c, and d, which designate the four possible responses to each statement or question presented in the test. You are to circle the lettered response which you feel correctly completes or answers each item. Be sure that the number of the question on the answer sheet corresponds to the same number on the test before marking your choice.

1. Successful experiences with leadership show that
- **a) all leaders possess certain inherited traits**
- **b) leaders are usually leaders in all fields**
- **c) effective leaders use the same methods**
- **d) leaders emerge in favorable social climate**

2. Charts and maps are examples of what type of resource?
- **a) audio-visual**
- **b) printed materials**
- **c) bibliographical**
- **d) demonstrational**

3. The categories of the Resource Board
- **a) are established by national 4-H**
- **b) should not contain cross-references**
- **c) are developed by the specific community**
- **d) are leased on the Resource Talent Finder**

4. The primary motivation for resource people is most likely to be based on
- **a) a feeling of accomplishment**
- **b) a sense of excellence**
- **c) a feeling of being needed**
- **d) a need for status**

5. Other factors important in the motivation of a resource person indicate that
- **a) his task should be unstructured**
- **b) the time allowed should be fairly long**
- **c) he should be warned about free use of his own ideas**
- **d) the beginning and end of his part should be defined**

6. The phase in a resource development most frequently overlooked is
- **a) selection**
- **b) orientation**
- **c) assessment**
- **d) evaluation**

7. The means that the leader uses to guarantee and maintain responsible service from the resource person to the youth with whom he works is
   a) leadership
   b) supervision
   c) recognition
   d) participation

8. The basic forms of recognition are
   a) tangible and intangible
   b) extrinsic and intrinsic
   c) personal and social
   d) limited and expended

9. The value of involving youth in 4-H projects lies in the fact that it
   a) bridges the gap between the family and the community
   b) helps youth to better express themselves
   c) gives them responsibility in civic projects
   d) helps them achieve better grades in school

10. The influence of 4-H clubs is
    a) limited to the individual members and their parents
    b) limited to the geographical area within which the 4-H members live
    c) felt in all groups and by all people with whom the 4-H members associate
    d) felt by only those people who have a sincere interest in 4-H activities

11. The impact that the 4-H group has upon members of the community is dependent upon the
    a) individual 4-H club member
    b) 4-H club leader
    c) amount of community related services
    d) geographical region in which the 4-H club members are concentrated

12. The best way in which 4-H leaders can contact people in the community to help in 4-H projects is be
    a) letter
    b) telephone
    c) group contact
    d) personal contact

13. In planning a meaningful 4-H program, the following should be considered
    a) the specific interests of 4-H club members
    b) the understanding that the members have about doing certain projects
    c) the aspirations that 4-H club members have
    d) all of the above

14. In reporting 4-H activities to the newspapers the following should be emphasized
    a) the job that 4-H leaders are doing in developing youth
    b) the cooperation that 4-H is getting from the community
    c) the good that 4-H is doing for the community
    d) what participation in 4-H is doing for the individual members

15. Which of the following can be used as a method for selecting 4-H leaders?
    a) 3 or 4 children contact the person they want to be their leader
    b) 2 or 3 leaders as a team personally contact the person they want to be a leader
    c) meeting of all parents of 4-H members is called to ask for volunteers
    d) all of the above

16. The best way to unite the club and community is
    a) to hold joint meetings
    b) to undertake community service projects by the club
    c) to give the club plenty of publicity
    d) to choose leaders with status in the community

17. 4-H club members are more motivated when the club goals are set by
    a) the club leader
    b) club members themselves
    c) leaders and members together
    d) members and parents

18. A child learns the difference between himself and others and becomes capable of relating to others around
    a) one to two years of age
    b) four to six years of age
    c) two to four years of age
    d) three to five years of age

19. An individual's behavior in any given situation is not
    a) always oriented toward protecting the self-concept
    b) always pertinent to the situation as he sees it
    c) directly influenced by his self-concept
    d) constant through time

20. A good 4-H leader will
    a) realize that members try to protect and enhance their self-concept
    b) try to judge members fairly according to 4-H standards
    c) earn respect of his members through strict authority
    d) recognize that members often try to change their self-concept

21. Utilization of one's potential capacities is an example of satisfaction of
    a) security needs
    b) social needs
    c) ego needs
    d) self-actualization needs

22. The social motives of competition and rivalry
    a) facilitate the acquisition of factual information and routine skills
    b) enhance the learning of factual information with detrimental concomitants
    c) improve creative work and conversational skills
    d) encourage social justice and group cooperation

23. As a motivator, the use of sarcasm
    a) always has detrimental results
    b) may be an incentive for some personalities
    c) depends upon the teacher's personality
    d) is more effective with older learners

24. Ways in which people differ and ways by which they are alike can be examined by studying
    a) the hereditary makeup of individuals
    b) the basic determinants of personality
    c) the educative process of the child
    d) varying patterns of interests within age groups

25. It can be stated that
    a) the members of any organized enduring group tend to manifest certain personality traits more frequently than do members of other groups
    b) all groups seem to manifest the same basic personality traits
    c) groups in general tend to have the same constitutional makeup
    d) the structure and formation of groups are such complex topics that no general statements can be made with reference to them

26. The four determinants of personality formation - constitutional, group membership, role, and situational
    a) occur as independent factors of personality formation
    b) occur as interrelated factors of personality formation
    c) are independent or dependent in personality formation, depending upon the particular person
    d) occur as independent factors of personality formation only in youth

27. An incorrect assumption that adults often make about youth is that
   a) physical, mental, social and emotional development occur at the same rate.
   b) biological development (puberty) for girls begins earlier than for boys
   c) physical development occurs at a different rate than mental, social, and emotional development
   d) the high school drop-out rate is approximately the same now as it was 50 years ago

28. In comparing the males and females of today with those of 50 years ago we can say that
   a) they are becoming more nearly alike in their behavioral patterns
   b) they are becoming increasingly differentiated in their behavioral patterns
   c) male and female roles have not changed appreciably over the last 50 years
   d) the only appreciable change in male and female roles has been in Western culture

29. Boys reach physical maturity on the average about
   a) the same time as girls
   b) two years before girls
   c) two years after girls
   d) three years after girls

30. Concerning the relationship between the adolescent and his parents, research has found
   a) that there is a general characteristic pattern of parent-youth conflict in our culture
   b) that there are only temporary conflicts between the adolescent and his parents
   c) that parent-youth conflict is only part of the general adolescent rebellion against the older generation
   d) parent-youth conflict is usually initiated by the parents

31. In 4-H, learning from the church, school and home
   a) is disregarded due to variance in individuals' backgrounds
   b) must be combined and used by each member
   c) must assimulated by the adult leader
   d) is nearly identical for each member

32. If the educational goals of 4-H are achieved, then 4-H is
   a) providing educational experiences related to those of home, church and school
   b) helping members to better relate to peers while learning
   c) providing an opportunity for interaction in learning processes
   d) helping youth to become more effective citizens

33. In 4-H young people are taught to select an objective on the basis of
    a) individual goals and social influence
    b) individual, social, civic and parental responsibility
    c) academic, personal and social goals
    d) individual, economic, social, and civic responsibility

34. The most important factors in a learning experience are
    a) subject, teacher and student
    b) teacher and learner
    c) learner and objective
    d) surroundings, learner and experience

35. Methods of 4-H learning may be best classified as
    a) listening, observing, discussing and doing
    b) observing, discussing, developing and assisting
    c) discussing, observing, assisting and leading
    d) observing, interacting, leading and evaluation

36. 4-H judging
    a) is beneficial to develop competitive behavior but is not a true learning experience
    b) should be used only for groups of older 4-H members
    c) teaches members about standards for products
    d) places most emphasis on the progress of each member

37. Effective support of a 4-H project considers as most important the particular
    a) situation and project
    b) project and individual
    c) individual and situation
    d) all of the above

38. 4-H program development should be
    a) a continuous process due to situational changes
    b) conducted by the members only
    c) tailored to needs of individual members
    d) finished before the start of the 4-H year

39. Informational data on youth
    a) rarely varies within one community
    b) varies markedly for one age-group in different localities
    c) varies between communities and within one community
    d) is impossible to work with due to individual differences

40. The program designed can discover and identify problems by
    a) studying situational information
    b) examining other clubs' programs
    c) interviewing each member
    d) reviewing previous years' programs

41. High school age 4-H members
    a) should select the adult to help plan programs
    b) need more direct guidance in planning programs
    c) need a directing leader more than an advising leader
    d) usually do not need parental help in planning programs

42. The program for groups with widespread ages is best when developed by
    a) a standing committee of members, parents and leaders
    b) a different group of members together with the leader for each program
    c) teachers and leaders working with members
    d) members formed into temporary committees

43. In large groups of older or all-age 4-H members, each member should
    a) serve on a sub-committee handling separate aspects of the program
    b) work with the leaders in planning the program
    c) unite with several other members and assume responsibility for the program
    d) handle a separate aspect of the total program

44. The leader may best determine if the program meets the members' and community's needs and interests by
    a) distributing a prepared questionnaire to members and parents
    b) being alert to verbal feedback from the members and the community
    c) listing the various learning opportunities to be conducted during the year
    d) comparing the program to those of successful clubs

45. The overall purpose of 4-H club meeting is to
    a) help boys and girls
    b) give boys and girls something to do
    c) help youth get to know each other
    d) satisfy the boys' and girls' parents

46. Through 4-H club meetings members mainly learn
    a) correct social actions
    b) creative use of leisure time
    c) governmental functioning
    d) good academic attitudes

47. Proper preplanning for a 4-H club meeting
   a) acquaints the officers with the agenda
   b) is the officers' responsibility
   c) makes committees unnecessary
   d) insures an interesting meeting

48. The business portion of the meeting usually begins with
   a) the leaders song
   b) an inspirational period
   c) roll call
   d) the call to order

49. In a group discussion the leader
   a) should be quiet but strict
   b) completely versed on the topic
   c) should not necessarily be likeable
   d) should encourage an informal seating arrangement

50. 4-H club meetings are distinguished from other educational activities by the
   a) recreational period
   b) informality of leaders
   c) participation of parents
   d) age range of the members

51. 4-H club meetings should
   a) be routine affairs if possible
   b) be under the supervision of parents
   c) occasionally be public programs
   d) de-emphasize the role of the leader

52. Acquiring new information and specific skills
   a) should be the primary goal of young people interested in entering the more challenging occupational fields
   b) is more important than developing attitudes, values, and a personality that can operate in complex situations
   c) is emphasized in today's educational programs in order to prepare young people for the complexities of today's society
   d) is of primary importance to today's youth if they expect to behave intelligently in new, changing, or complex situations

53. Social institutions
   a) are not necessary to the basic education of today's youth
   b) are necessary to supplement formal educational experiences
   c) are not as important as schools in the education of today's youth
   d) can provide only the practical experience associated with education

54. The Smith-Lever Act and subsequent legislation
a) has indicated that the states are partners in support of Extension
b) clearly indicated work with youth as a part of Extension
c) has not been able to provide financial support for Cooperative Extension
d) set up the methods and procedures for operating Cooperative Extension programs

55. States have enacted legislation which
a) made them partners with the federal government in support of Extension
b) expanded federal legislation to include all youth organizations
c) made them independent of the federal government in support of extension
d) allows them to regulate the type and amount of federal aid that cooperative extension can accept

56. The 4-H program offers
a) opportunity for intelligence and maturity at an early age
b) the opportunity to gain experience in a chosen profession
c) everyone the opportunity to discover their limitations
d) a broad range of learning experiences for interested young people

57. The wide range of voluntary choices available to 4-H youth
a) encourages study and practice of what is learned
b) requires a certain degree of sophistication in the members
c) makes it possible for them to become anything they want
d) necessitates a certain degree of laxity in educational procedures

58. In many instances the opportunities are inadequate for
a) well-qualified persons to become leaders in the 4-H program
b) young people to receive adequate instruction in handling 4-H projects
c) democratic participation of youth in community activities
d) unbiased selection of interested adults as 4-H leaders

59. The 4-H teaching-learning process involves
a) a human transaction
b) parents and members
c) a leader-member interaction only
d) changing of principles

60. A successful group teaching method
a) allows for continuous evaluation of the group accomplishments
b) utilizes at least help for the members individually or in committees
c) allows the leader to direct the group only indirectly
d) does not include role playing

61. Workshops in 4-H teaching
   a) should be conducted democratically by the members with no leader interference
   b) should be planned by leaders and members together
   c) should be planned by leaders and parents together
   d) are useless for large groups of members

62. Demonstrations, illustrated talks, judging and exhibits
   a) are examples of group teaching methods
   b) are examples of visual-oral teaching methods
   c) provide a good opportunity for peer interaction
   d) all of the above

63. In regard to illustrated talks
   a) the illustrator does what is to be taught
   b) the illustrator shows how to do what is to be taught
   c) the illustrator is usually the 4-H leader
   d) these are examples of community service projects

64. The teaching-learning experiences of an excursion provides
   a) information about the home community
   b) responsibility of planning the tour
   c) the presentation of one short complete message
   d) all of the above

65. Who should be responsible to plan the excursion to satisfy an interest group?
   a) the members only
   b) leader and members
   c) parents and leaders
   d) community and 4-H leaders

66. The quantity and quality of parent cooperation in 4-H
   a) is largely determined by local acceptance of the 4-H program
   b) is restricted by extension service regulations for 4-H projects
   c) is highly related to the leader's attitudes and skills in working with parents
   d) is largely determined by the 4-H leader's ability to understand parents

67. Extension agents are responsible for
   a) planning and assigning appropriate projects to 4-H members
   b) training lay leaders to work effectively with parents
   c) publicizing and obtaining community acceptance of 4-H programs
   d) administering funds provided by federal, state, and local extension services

68. The term Extension Agent may cause young people to join 4-H, however
   a) it takes University support to keep them interested
   b) they need vocational guidance to keep them interested
   c) they must have constant supervision to make it worthwhile
   d) it takes the good will and help of parents to keep the fire burning

69. The volunteer 4-H leader's success with young people can be multiplied by
   a) seeking and obtaining parent cooperation
   b) providing sufficient funds to guarantee success
   c) establishing a 4-H course in the local high school
   d) offering projects that will appeal to every interest

70. Feelings of security, sanction of action, encouragement, and direction are
   a) given to every member of a 4-H club
   b) all proveded in a well-rounded 4-H program
   c) what children need from their parents in order to stick with 4-H
   d) the things young people are in need of when they join 4-H

71. When parents are encouraged and help perform a project successfully
   a) they receive the satisfaction of parent fulfillment
   b) they can point this out to others in the community
   c) it fulfills their obligation to help the 4-H program
   d) they usually become leaders in establishing new 4-H clubs

72. It is important for 4-H leaders to obtain parental cooperation
   a) so that they will have time to assist each 4-H member in all facets of his program
   b) so the young people will receive parental attention and adults will achieve greater fulfillment
   c) so that they will have more time to attend to the details of running the 4-H program
   d) so that governmental support for local projects will be easier to obtain

73. Most parents will assist in various aspects of 4-H when
   a) their children are given unusual projects
   b) they see that it is done by other community leaders
   c) the projects are tied to specific areas of vocational interest
   d) their attention is captured and interest aroused in 4-H benefits

74. The key contact people with parents regarding 4-H are
    a) the volunteer 4-H leaders
    b) the Extension Agents directing the 4-H programs
    c) representatives of the college or university sponsoring the 4-H program
    d) parents with children participating in the 4-H program

75. One method of getting parent cooperation in 4-H might be to
    a) offer financial aid to members whose parents assist on projects
    b) have older members provide the materials for prospective member projects
    c) have the club members arrange and carry out a special program for parents
    d) use the clubs influence to place members in the college of their choice

76. Area and county wide 4-H parent meetings should be planned by
    a) the volunteer 4-H leaders in each area
    b) the professional staff working with the 4-H leaders
    c) parents of members in each 4-H club working with professional staff
    d) selected members from each 4-H club working with area 4-H leaders

77. The 4-H leader must be sure that the parents
    a) divide their responsibilities equally among themselves
    b) do not pick projects which will be too easy for members to complete
    c) see him as being objective and fair in dealing with club members
    d) understand and approve of all facets of the 4-H program

78. In order to alert parent interest and enhance their understanding, the 4-H leader should
    a) include the parents of prospective members in special programs
    b) give those parents with particular talents permanent positions in the 4-H program
    c) rotate opportunities among parents to serve 4-H in various ways
    d) be sure that parents are continually reminded of what 4-H can do for young people

79. Whether or not parents cooperate with 4-H programs depends upon
    a) the adult 4-H volunteer leader's attitude
    b) the needs of the 4-H program in each area
    c) their position in the various high school curriculum
    d) the need due to their establishment in either rural or urban areas

80. Parent interest in 4-H programs will grow as they
    a) see how little time it takes to participate in 4-H
    b) understand the personal prestige to be gained from 4-H programs
    c) find they have more free time because their children are occupied
    d) visit extension offices, meet the professional staff, and see 4-H on a larger scale.

81. To encourage parental cooperation, 4-H leaders should
  a) allow interested parents to freely choose which task they will perform
  b) help the members decide which parents should be included in the program
  c) list appropriate tasks for parents to perform which complement the goals of the 4-H club
  d) expect parents to initially learn about 4-H through cooperation with the club

82. Parental aid in choosing a 4-H project or activity
  a) is necessary only for younger members
  b) is beneficial for both members and parents
  c) should be given only at the direction of the leader
  d) is rarely appreciated by club members

83. Parents are cooperating best with 4-H when they
  a) allow the child complete freedom in choosing and carrying out a project
  b) force the child to earn the money needed for the project he chooses
  c) supply the necessary material and equipment for the chosen project
  d) choose and help carry out a proper 4-H project for their child

84. 4-H parents should
  a) not help the members with their project because this lessens the learning experience
  b) serve as an audience for members in practice sessions
  c) leave suggestions on project materials and presentations to the leader and other members
  d) do the difficult work on a project for their children

85. The wise local 4-H leader
  a) acquaints himself with the abilities of various parents before he asks them to assist
  b) allows all parents who volunteer to perform the task at which they are most skilled
  c) uses only those parents who can perform a certain needed function of the club
  d) investigates the abilities of the parents after asking for their assistance

86. It is the responsibility of the ____________ to interest parents in sharing their abilities and reflecting their personality through 4-H.
  a) national 4-H magazines
  b) 4-H club members
  c) 4-H club leaders
  d) 4-H parents already involved

87. 4-H public recognition
    a) should be given to all parents regardless of the ways in which they cooperate
    b) expands and retains parent cooperation
    c) should be under the direction of the volunteer 4-H leaders
    d) all of the above

88. In regard to parent cooperation in 4-H,
    a) parents seek opportunities for self-fulfillment through helping their children in 4-H
    b) young pople generally do not want parent participation in their functions
    c) individual parents should not be recognized in public, but should receive private words of commendation
    d) it is the member's duty to see that his parents understand the functions of 4-H

89. The tasks that the parent performs in conjunction with 4-H
    a) could easily be performed by the leaders
    b) are important only to his children
    c) should be left to the discretion of the parent
    d) are important to the entire community

90. Parents should cooperate with 4-H by
    a) encouraging their children to give a demonstration or prepare an exhibit
    b) encouraging their children to take part in as many other youth groups as possible
    c) refraining from extending their influence to 4-H members other than their own children
    d) all of the above

APPENDIX E

Internal Consistencies and Difficulty Levels of Initial Field Test Items

Form A

Item #	Corr. With Total Score	Difficulty Level	Item #	Corr. With Total Score	Difficulty Level
1*	.04	42%	41	-.19	82%
2*	.17	88%	42*	.35	4%
3*	.12	46%	43*	.17	36%
4	.00	0%	44*	.33	52%
5*	.33	52%	45*	.47	26%
6	-.13	38%	46	-.12	54%
7*	.32	18%	47*	.13	42%
8*	.12	46%	48*	.00	24%
9*	.50	60%	49*	.12	20%
10*	.06	78%	50	.00	100%
11*	.19	18%	51*	.14	70%
12*	.21	62%	52	-.04	70%
13	.00	92%	53*	.12	54%
14*	.05	74%	54	-.33	44%
15*	.28	78%	55*	.23	2%
16	.21	58%	56*	.09	64%
17	-.23	98%	57	.00	48%
18	.22	66%	58*	.21	24%
19	-.23	92%	59	-.10	28%
20*	.26	36%	60*	.08	40%
21*	.22	34%	61	.04	46%
22*	.15	26%	62*	.24	80%
23*	.26	60%	63*	.10	72%
24*	.26	26%	64*	.42	40%
25*	.30	62%	65*	.30	72%
26	-.49	8%	66	.23	86%
27	-.04	38%	67	.04	66%
28	-.14	6%	68	-.26	74%
29*	.33	44%	69	.00	96%
30	.35	96%	70	-.19	82%
31*	.61	86%	71	.00	96%
32*	.30	90%	72	-.09	90%
33*	.12	54%	73*	.28	22%
34*	.21	54%	74*	.04	70%
35*	.23	8%	75	.00	80%
36*	.17	12%	76*	.44	36%
37*	.21	24%	77*	.37	42%
38*	.21	38%	78*	.32	24%
39	.00	72%	79	.50	8%
40*	.24	30%	80*	.13	16%

(continued)

Item #	Corr. With Total Score	Difficulty Level	Item #	Corr. With Total Score	Difficulty Level
81*	.13	34%	91*	.06	78%
82	-.30	10%	92*	-.09	10%
83*	.33	52%	93	-.19	28%
84*	.21	54%	94*	.00	48%
85*	.26	64%	95*	.24	30%
86*	.12	46%	96*	.19	18%
87*	.63	84%	97*	.19	82%
88*	.22	66%	98*	.25	44%
89*	.44	84%	99*	.16	52%
90*	.29	54%	100	.17	12%
Form B					
1*	.19	82%	31	-.06	22%
2*	.09	36%	32	.09	90%
3	-.34	9%	33*	.08	49%
4*	.14	30%	34	.04	38%
5*	.14	70%	35*	.18	32%
6*	.29	46%	36*	.36	12%
7	.00	96%	37*	.09	10%
8*	.08	56%	38	.00	8%
9*	.17	64%	39*	.32	82%
10	.00	84%	40	.00	20%
11*	.37	68%	41	-.13	34%
12	.23	92%	42*	.04	42%
13	-.43	6%	43*	.24	70%
14	.00	100%	44*	.26	28%
15*	.17	56%	45*	.17	40%
16	.35	96%	46*	.08	56%
17*	.21	58%	47*	.19	72%
18*	.28	84%	48*	.23	2%
19*	.04	34%	49	-.14	6%
20	.09	90%	50*	.44	76%
21*	.00	68%	51	-.23	2%
22	.23	98%	52*	.05	74%
23*	.57	76%	53	-.19	18%
24*	.17	60%	54*	.13	84%
25*	.37	50%	55*	.09	32%
26*	.64	62%	56*	.22	34%
27*	.13	34%	57	-.36	12%
28*	.17	60%	58*	.14	30%
29	-.23	14%	59	.00	68%
30*	.34	40%	60*	.40	66%

(continued)

Item #	Corr. With Total Score	Difficulty Level	Item #	Corr. With Total Score	Difficulty Level
61*	.23	8%	81*	.57	44%
62*	.36	12%	82*	.44	24%
63	.07	86%	83*	.14	6%
64*	.35	64%	84	-.09	26%
65*	.25	52%	85*	.28	84%
66*	.21	64%	86*	.37	32%
67	.00	100%	87*	.21	46%
68*	.04	70%	88*	.37	80%
69*	.08	40%	89	.43	94%
70*	.37	54%	90*	.32	76%
71*	.40	79%	91*	.12	46%
72*	.26	74%	92*	.39	62%
73*	.00	68%	93	-.09	86%
74*	.22	66%	94*	.04	38%
75	.35	96%	95*	.09	36%
76*	.19	62%	96	.00	100%
77*	.19	62%	97*	.21	24%
78*	.19	48%	98*	.17	60%
79*	.19	82%	99*	.18	32%
80	.00	12%	100*	.21	62%

Form C

1*	.42	40%	21	-.04	62%
2*	.23	14%	22*	.15	26%
3	-.10	28%	23*	.25	52%
4	.00	52%	24*	.11	24%
5*	.12	50%	25*	.10	28%
6	-.13	38%	26*	.34	40%
7	.04	46%	27*	.24	70%
8	.04	42%	28	-.08	60%
9*	.11	76%	29*	.19	72%
10	.20	98%	30	-.12	40%
11*	.09	36%	31*	.13	84%
12*	.07	86%	32*	.09	64%
13*	.32	82%	33*	.26	60%
14*	.00	48%	34*	.22	34%
15*	.19	72%	35	-.43	6%
16*	.44	84%	36*	.17	88%
17*	.18	68%	37*	.14	6%
18*	.44	36%	38*	.00	60%
19*	.12	46%	39*	.60	74%
20	.00	32%	40*	.24	30%

(continued)

Item #	Corr. With Total Score	Difficulty Level	Item #	Corr. With Total Score	Difficulty Level
41	-.06	18%	66*	.46	68%
42	-.13	42%	67*	.11	24%
43	-.09	36%	68*	.04	86%
44	.00	20%	69*	.32	82%
45*	.23	86%	70*	.25	44%
46*	.08	44%	71*	.26	60%
47	.00	0%	72	-.04	50%
48*	.23	4%	73*	.24	80%
49*	.04	14%	74*	.16	48%
50	-.14	6%	75	.00	96%
51	-.08	52%	76*	.13	38%
52	.00	20%	77*	.17	44%
53	-.12	80%	78*	.04	62%
54	-.04	34%	79*	.18	68%
55*	.22	56%	80	.00	80%
56	.35	96%	81	-.04	38%
57	-.18	68%	82	.00	96%
58*	.28	22%	83*	.09	32%
59*	.12	54%	84*	.32	82%
60*	.30	72%	85*	.21	42%
61*	.12	80%	86*	.37	50%
62*	-.11	24%	87*	.04	38%
63*	.23	92%	88*	.04	54%
64	.00	8%	89*	.37	80%
65	.00	0%	90*	.40	78%

APPENDIX F

Alpha

ADULT 4-H LEADERS PROJECT PRETEST

DIRECTIONS: For each of the following items mark the response you feel is correct on the enclosed answer sheet. Be sure that the number of the question on the answer sheet corresponds to the same number on the test before marking your choice. Answer every item. When you have finished, place the completed answer sheet in the self-addressed envelope and mail it to Colorado State University. Then, DESTROY THIS TEST BOOKLET. DO NOT KEEP IT. After the answer sheet has been received, you will be sent six units of the 4-H leader course for self-study. Additional directions will also be sent at that time.

We appreciate your participating in this project.

1. 4-H complements, supplements, and reinforces all other educational sources by
   a. relating all learning to professional opportunities.
   b. relating all learning to real life.
   c. concentrating on federal and state legislation.
   d. making mature adults of immature young people.

2. 4-H projects enhance the member's confidence in his abilities and
   a. develop attitudes and values which contribute to personality adjustment.
   b. assure him proficiency in a specialized area of endeavor.
   c. make him ready to compete successfully in his chosen profession.
   d. develop his ability to influence his friends in other youth organizations.

3. The study of, and member relations to, particular jobs
   a. are second in importance to members' actual job performance.
   b. can be enlivened by trips to actual business organizations.
   c. is the difference between 4-H and similar youth organizations.
   d. is in a constant state of flux due to the change in society.

4. States have enacted legislation which
   a. made them partners with the federal government in support of extension.
   b. expanded federal legislation to include all youth organizations.
   c. made them independent of the federal government in support of extension.
   d. allows them to regulate the type and amount of federal aid that cooperative extension can accept.

5. The 4-H program provides natural situations which help members
   a. show what they can do under difficult circumstances.
   b. learn what youth can contribute to the educational process.
   c. understand, accept, and work with persons different from themselves.
   d. gain experience in competing and interacting with youth from diverse backgrounds.

6. Concepts and principles of leadership learned through 4-H develop
   a. the ability to get merit respect.
   b. abilities unique to 4-H.
   c. leadership qualities in all members.
   d. positive attitudes toward the accepting of responsibility.

7. Research is necessary to
   a. understand how 4-H differs from other youth groups.
   b. identify weak areas and add new subject matter.
   c. give justification for federal and state support of 4-H.
   d. show that 4-H is a progressive, well-informed organization.

8. The subject matter, methods, and learning experiences used in 4-H
   a. emphasize special areas of instruction.
   b. allow members to specialize.
   c. are unique to 4-H organizations.
   d. facilitate integrated learning.

9. Education has the purpose of
   a. helping youth acquire the information and specific skills necessary for successful living in new, complex situations.
   b. teaching young people how to function adequately in today's complex, technically oriented society.
   c. preserving the individual in spite of the pressures exerted by today's technically oriented society.
   d. helping youth become intelligent behavers and achieve successful living in new, complex situations.

10. Many situations require
   a. a wide range of choices in order to make intelligent decisions.
   b. previous experiences in order to function intelligently in them.
   c. a narrow range of experiences in order not to confuse the issues.
   d. people, ideas, places and things before a decision is made.

11. Today more emphasis is being placed on
   a. the development of personality, attitudes and values.
   b. the acquiring of information and specific skills.
   c. specialized education to fit the needs of society.
   d. youth's ability to adjust to new and complex situations.

12. In planning the 4-H program
   a. members, parents, leaders and all interested people should be involved.
   b. the leader should draw up initial plans before conferring with parents and members.
   c. member involvement is favored over parental involvement.
   d. only the members should be involved except with very young groups.

13. The 4-H program is evaluated by
   a. determining the degree of participation in terms of group projects.
   b. determining the progress of the 4-H members in terms of the objectives.
   c. administering achievement tests at the beginning and end of the 4-H year.
   d. comparing the program to those of other local and national 4-H clubs.

14. Systematic planning of the 4-H program
   a. is the total responsibility of the group leader.
   b. is needed to provide a balance of activities.
   c. should take place during the 4-H year.
   d. all of the above.

15. The following cannot usually be said about youth around ten years of age.
    a. They have leadership ability.
    b. They accept rules and regulations.
    c. They are easily motivated.
    d. They have a short interest span.

16. Once the program designer selects problems to solve and arranges the order or priority, he
    a. is ready to establish objectives.
    b. should submit the list to the members.
    c. should consult the regional program designer.
    d. all of the above.

17. Information about boys and girls shows children of the same age vary most in
    a. preference for gangs.
    b. interest spans.
    c. motivational aspects.
    d. emotional makeup.

18. The level of change which takes place in knowledge, understanding, or ability as a result of the 4-H program
    a. is highly individual and impossible to measure.
    b. should be indicated by the program objective.
    c. is approximately the same for boys and girls of one age group.
    d. shows a great variance within one age group due to sex differences.

19. It is necessary that 4-H program developers have a knowledge of broad objectives because
    a. broad objectives define member needs and interests.
    b. national officials set broad objectives as the criterion for 4-H programs.
    c. situational information should be examined with broad objectives in mind.
    d. broad objectives vary widely with geographical location.

20. Judging of 4-H member projects
    a. is the best method of program evaluation.
    b. is one way to review each member's progress.
    c. makes allowances for initial variation in the members.
    d. considers only the end result of the program.

21. 4-H judging
    a. is beneficial to develop competitive behavior but is not a true learning experience.
    b. should be used only for groups of older 4-H members.
    c. teaches members about standards for products.
    d. places most emphasis on the progress of each member.

22. The main purpose of a 4-H learning experience is to teach young people
    a. knowledge.
    b. responsibility.
    c. cooperation.
    d. respect.

23. The 4-H learning experience is designed to
    a. supplement education from other sources.
    b. strengthen and broaden education from other sources.
    c. provide experiences similar to home and school.
    d. broaden the education of exceptional students.

24. If the educational goals of 4-H are achieved, then 4-H is
    a. providing educational experiences related to those of home, church and school.
    b. helping members to better relate to peers while learning.
    c. providing an opportunity for interaction in learning processes.
    d. helping youth to become more effective citizens.

25. In 4-H young people are taught to select an objective on the basis of
    a. individual goals and social influence.
    b. individual, social, civic and parental responsibility.
    c. academic, personal and social goals.
    d. individual, economic, social, and civic responsibility.

26. The most effective way to support a project is not based upon the
    a. individual's civic responsibility.
    b. nature of the project.
    c. objective of the project.
    d. individual's peer responsibility.

27. Who is responsible for providing an opportunity for young people to learn to be effective citizens in a democratic society?
    a. National 4-H
    b. 4-H members and leaders
    c. 4-H parents and members
    d. 4-H leaders

28. Choice of an objective to achieve in 4-H always depends upon
    a. the unique situation.
    b. community needs.
    c. national 4-H objectives.
    d. members' needs.

29. Boys reach physical maturity on the average about
    a. the same time as girls.
    b. two years before girls.
    c. two years after girls.
    d. five years after girls.

30. An incorrect assumption that adults often make about youth is that
    a. physical, mental, social and emotional development occur at the same rate.
    b. biological development (puberty) for girls begins earlier than for boys.
    c. physical development occurs at a different rate than mental, social, and emotional development.
    d. the high school drop-out rate is approximately the same now as it was 50 years ago.

31. In considering the period of life known as youth
    a. a large percentage of people traverse this period without serious difficulty.
    b. a significant portion of youth (about 30%) become either juvenile offenders or social dropouts.
    c. a large percentage of people passing through this stage (about 20%) become active rebels.
    d. the factor of individual differences makes it hard to arrive at any conclusion during this period.

32. When we compare masculine roles today as compared to 50 years ago we see
    a. that physical stamina remains just as important a concept for the masculine role.
    b. status brought about largely by the mastery of intellectual and social skills as the important factor in the masculine role.
    c. the masculine role is becoming increasingly differentiated from that of the feminine role.
    d. b and c above.

33. The easiest time to enroll youngsters in 4-H clubs is when
    a. they are most susceptible to the guidance of adult leaders.
    b. contacts with the opposite sex are being developed.
    c. friends of the same sex are becoming increasingly important to them.
    d. they are beginning to reject their parents.

34. Individual differences in youth are fostered to a great extent by
    a. accidental happenings.
    b. peer group influence.
    c. family relationships.
    d. school influences.

35. Research comparing personality differences of late as compared to early maturing adolescents shows that
    a. childish attention-getting techniques are constant for adolescents regardless of maturity level.
    b. early maturing adolescents show childish attention-getting techniques mainly to attract persons of the opposite sex.
    c. late maturing boys often use childish attention-getting techniques to compensate for their small size, compared with early-maturing males.
    d. childish attention-getting techniques are used significantly more often for girls than for boys.

36. Roles can be defined as
    a. the masks people hide behind when they interact in various groups.
    b. patterns of behavior that we expect certain people to engage in according to the position they occupy.
    c. the particular kinds of activities that a particular person engages in within a certain group.
    d. the formal assignment and acceptance of a particular position by an individual in a group.

37. It can be stated that
    a. the members of any organized enduring group tend to manifest certain personality traits more frequently than do members of other groups.
    b. all groups seem to manifest the same basic personality traits.
    c. groups in general tend to have the same constitutional makeup.
    d. the structure and formation of groups are such complex topics that no general statements can be made with reference to them.

38. The most important group in the growth and development of children from pre-adolescence through post-adolescence is
    a. the 4-H club.
    b. the church.
    c. the peer group.
    d. the parents.

39. Ways in which people differ and ways by which they are alike can be examined by studying
    a. the hereditary makeup of individuals.
    b. the basic determinants of personality.
    c. the educative process of the child.
    d. varying patterns of interests within age groups.

40. The influence of environment upon the constitutional makeup of the person can be explained by
    a. proper nutrition.
    b. peer group influences.
    c. proper climate.
    d. physical exercise.

41. A leader or member making or doing something while explaining why he does it, is an example of
    a. role playing.
    b. workshops.
    c. demonstrations.
    d. action teaching.

42. A successful group teaching method
    a. allows for continuous evaluation of the group accomplishments.
    b. utilizes the least help for the members individually or in committees.
    c. allows the leader to direct the group only indirectly.
    d. does not include role playing.

43. A method of recognition of 4-H club individual members may be
    a. group discussion.
    b. illustrated talks.
    c. role playing.
    d. project tours.

44. The 4-H teaching-learning process involves
    a. a human transaction.
    b. parents and members.
    c. a leader-member interaction only.
    d. changing of principles.

45. Problem solving in a group
    a. should not be used formally in teaching project information.
    b. may be used informally whenever a group of members are to make a decision.
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    d. should not be used with younger 4-H members.

46. Trips which teach about something outside of the home community are
    a. project tours.
    b. excursions.
    c. exhibit trips.
    d. 4-H service trips.

47. To conduct an effective workshop
    a. the length of the workshop will depend upon the subject only.
    b. the workshop should employ as little leader teaching as possible.
    c. the teacher should demonstrate each step of the project.
    d. each member should be allowed to demonstrate a step of the project.

48. The acting out of a problem or important point concerning 4-H is an example of
    a. the buzz session.
    b. dramatization.
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    d. demonstration learning.

49. Exhibits are
    a. educational displays which present several 4-H aims.
    b. displays of individual articles made by 4-H members in their projects.
    c. displays of awards won by 4-H members.
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50. The objective of 4-H teaching methods is to
    a. allow members to change attitudes.
    b. provide peer interactions.
    c. instill Christian principles.
    d. provide a "fun atmosphere" of learning.

51. The secret of community leadership is most accurately described as
    a. finding outstanding people.
    b. development of a pattern of cooperative effort
    c. effective supervision by the leader.
    d. obtaining the aid of local office-holders.

52. In developing resources the use of recognition should be
    a. a continuous process.
    b. limited to leaders.
    c. supported by parents.
    d. a three-stage process.

53. In regard to his supervisory role, the leader must understand resource people as
    a. equals.
    b. individuals.
    c. professionals.
    d. humanists.

54. Good supervision of resource people requires them to
    a. study.
    b. direct.
    c. participate.
    d. lead.

55. It is advisable to match a resource person to the
    a. leader who will orient him.
    b. members he will assist.
    c. level of knowledge of the group.
    d. type of task to be performed.

56. The person requesting the help of a resource person should
    a. be the 4-H leader.
    b. be the 4-H member.
    c. allow him to choose his own task.
    d. have adequate information about the task.

57. The development of the Resource Record is
    a. time-consuming at first.
    b. independent of local news media.
    c. the responsibility of the members.
    d. unnecessary for clubs in small towns.

58. Leadership development is a step-by-step process and in 4-H it frequently starts with
    a. assuming a resource person's responsibility.
    b. the first time a person is in the right social climate.
    c. asking the person to be a leader.
    d. being able to do something better than someone else.

59. The Resource Record is a file of
    a. specific persons.
    b. specific resources.
    c. potential resources.
    d. resource people of proven worth.

60. Charts and maps are examples of what type of resource?
    a. audio-visual
    b. printed materials
    c. bibliographical
    d. demonstrational

Beta

ADULT 4-H LEADERS PROJECT PRETEST

DIRECTIONS: For each of the following items mark the response you feel is correct on the enclosed answer sheet. Be sure that the number of the question on the answer sheet corresponds to the same number on the test before marking your choice. Answer every item. When you have finished, place the completed answer sheet in the self-addressed envelope and mail it to Colorado State University. Then, DESTROY THIS TEST BOOKLET. DO NOT KEEP IT. After the answer sheet has been received, you will be sent six units of the 4-H leader course for self-study. Additional directions will also be sent at that time.

We appreciate your participating in this project.

1. All the leaders of a 4-H club should
   a. work together as a team in developing projects.
   b. work on different aspects of the program.
   c. include the people of other communities in the developing and executing of plans.
   d. advise state officials of the development of 4-H club projects.

2. The value of involving youth in 4-H projects lies in the fact that it
   a. bridges the gap between the family and the community.
   b. helps youth to better express themselves.
   c. gives them responsibility in civic projects.
   d. helps them achieve better grades in school.

3. 4-H club leaders should
   a. employ as many people as possible in the community to develop an active education program with youth.
   b. be able to work independently of other people in the community to develop an active education for youth.
   c. use only the interested members of the community for developing 4-H club programs.
   d. employ county extension agents to develop and administer 4-H programs in the community.

4. The 4-H leader should
   a. be selected within the community.
   b. be selected by the members.
   c. not be selected without training in 4-H leadership.
   d. not be under 30 years of age.

5. Membership in 4-H clubs helps insure emotional stability by providing
   a. the proper education for youths.
   b. moral guidance for youth.
   c. a feeling of belonging to the group.
   d. the proper social outlet for youth.

6. 4-H club leaders should
   a. encourage other youth organizations to participate in activities with the 4-H clubs.
   b. not encourage 4-H clubs to participate on projects with other youth organizations.
   c. join forces with other youth groups only for civic projects.
   d. avoid duplication of activities with other youth organizations.

7. 4-H club work is designed so that
   a. the club can run in a manner fairly independent of the community.
   b. people in the community are responsible for the club under the guidance of adult leaders.
   c. county extension agents can select 4-H club leaders.
   d. parents of 4-H club members play the major role in the running of the club.

8. The impact that the 4-H group has upon members of the community is dependent upon the
   a. individual 4-H club member.
   b. 4-H club leader.
   c. amount of community related services.
   d. geographical region in which the 4-H club members are concentrated.

9. 4-H members may improve their projects by
   a. inviting other groups to join them.
   b. limiting them to established 4-H goals.
   c. involving less people and thus less red tape.
   d. asking for more leader guidance.

10. The 4-H club's
    a. influence depends upon the size of the club.
    b. influence can be felt by only the geographic area in which it is located.
    c. support is the responsibility of the people in the community.
    d. success depends upon the acceptance by the community.

11. Which of the following parts of the meeting should occupy the greatest amount of time?
    a. business
    b. instruction
    c. recreation
    d. observation

12. Casual seating in the 4-H club meeting
    a. promotes participation.
    b. prevents orderliness.
    c. reduces efficiency.
    d. encourages competition.

13. In the 4-H club meeting
    a. parlimentary procedure is necessary.
    b. the business protion should be as short as possible.
    c. business matters should not be discussed.
    d. business matters should be handled by the officers.

14. In selecting a topic for a demonstration
    a. choose one that the members are not familiar with.
    b. the topic should incorporate several ideas.
    c. the topic should be suited to the occasion.
    d. the leaders should have the final say.

15. In preparing for a demonstration at a 4-H meeting
    a. members may help the leader prepare.
    b. the leader should make all the necessary preparation.
    c. all members should help in some way.
    d. older members should prepare the demonstration.

16. The well planned program for the meeting should be balanced between business, recreation and ____________.
    a. demonstration.
    b. prayer.
    c. participation.
    d. instruction.

17. To improve the instruction session of the club meeting
    a. emphasis is on student reports.
    b. any good teaching method may be utilized.
    c. discipline is necessary.
    d. parents may act as teachers.

18. Proper regalia in the 4-H meeting does not create
    a. a spirit of belonging.
    b. an air of expectancy.
    c. an atmosphere of importance.
    d. a consciousness of authority.

19. Each club meeting should have some ___________ games.
    a. educational
    b. sedate
    c. group
    d. active

20. The business portion of the meeting usually begins with
    a. the leaders song.
    b. an inspirational period.
    c. roll call.
    d. the call to order.

21. 4-H parents should
    a. not help the members with their project because this lessens the learning experience.
    b. serve as an audience for members in practice sessions.
    c. leave suggestions on project materials and presentations to the leader and other members.
    d. do the difficult work on a project for their children.

22. The tasks that the parent performs in conjunction with 4-H
    a. could easily be performed by the leaders.
    b. are important only to his children.
    c. should be left to the discretion of the parent.
    d. are important to the entire community.

23. Most parents will assist in various aspects of 4-H when
    a. their children are given unusual projects.
    b. they see that it is done by other community leaders.
    c. the projects are tied to specific areas of vocational interest.
    d. their attention is captured and interest aroused in 4-H benefits.

24. Whether or not parents cooperate with 4-H programs depends upon
    a. the adult 4-H volunteer leader's attitude.
    b. the needs of the 4-H program in each area.
    c. their position in the various high school curriculum.
    d. the need due to their establishment in either rural or urban areas.

25. When parents are encouraged and help perform a project successfully
    a. they receive the satisfaction of parent fulfillment.
    b. they can point this out to others in the community.
    c. it fulfills their obligation to help the 4-H program.
    d. they usually become leaders in establishing new 4-H clubs.

26. In regard to parent cooperation in 4-H,
    a. parents seek opportunities for self-fulfillment through helping their children in 4-H.
    b. young people generally do not want parent participation in their functions.
    c. individual parents should not be recognized in public, but should receive private words of commendation.
    d. it is the member's duty to see that his parents understand the functions of 4-H.

27. The key contact people with parents regarding 4-H are
    a. the volunteer 4-H leaders.
    b. the Extension Agents directing the 4-H programs.
    c. representatives of the college or university sponsoring the 4-H program.
    d. parents with children participating in the 4-H program.

28. Feelings of security, sanction of action, encouragement, and direction are
    a. given to every member of a 4-H club.
    b. all provided in a well-rounded 4-H program.
    c. what children need from their parents in order to stick with 4-H.
    d. the things young people are in need of when they join 4-H.

29. Area and county wide 4-H parent meetings should be plamed by
    a. the volunteer 4-H leaders in each area.
    b. the professional staff working with the 4-H leaders.
    c. parents of members in each 4-H club working with professional staff.
    d. selected members from each 4-H club working with area 4-H leaders.

30. Parents are cooperating best with 4-H when they
    a. allow the child complete freedom in choosing and carrying out a project.
    b. force the child to earn the money needed for the project he chooses.
    c. supply the necessary material and equipment for the chosen project.
    d. choose and help carry out a proper 4-H project for their child.

31. Incentives to motivate 4-H members
    a. should not be obvious to the members.
    b. should conform to 4-H manual rules.
    c. may be varied to fit each individual.
    d. should not vary with each individual.

32. Concerning human motivation and perception
    a. many people behave in ways that do not make sense to them.
    b. an individual's needs usually remain constant over time in influencing.
    c. a person's perception of the situation influences his behavior in that situation.
    d. behavior is influenced by motivations which remain constant across one age group.

33. When a 4-H member has only limited access to necessary information
    a. he should be discouraged from depending on the leader.
    b. the project should be dropped so as to not bring about failure.
    c. he is having his initiative blocked.
    d. other members should be aware of the situation.

34. In understanding and working with others, the 4-H leader should focus on the aspects of the
    a. intellectual difference between individual members.
    b. parental influences relating to the individual and the home.
    c. individual, the situation, and their interactions.
    d. the parents, the individual, and the community.

35. A leader can expect the 4-H members to
    a. respond positively to all recreational activities.
    b. respond differently in any given situation.
    c. behave better when negatively rewarded.
    d. behave in a similar manner in most situations.

36. As a motivator, the use of sarcasm
    a. always has detrimental results.
    b. may be an incentive for some personalities.
    c. depends upon the teacher's personality.
    d. is more effective with older learners.

37. An individual's behavior in any given situation is not
    a. always oriented toward protecting the self-concept.
    b. always pertinent to the situation as he sees it.
    c. directly influenced by his self-concept.
    d. constant through time.

38. A child of four or five tries to find out as much as possible without feeling guilty. Parents and adult leaders should
    a. give him as much freedom as possible, being consistent about their limits.
    b. make him realize his responsibilities to society by restraining him.
    c. satisfy each need and curiosity as soon as it is manifested.
    d. control him as much as possible, teaching social rules.

39. A learner is more apt to experiment and explore when
    a. the setting guarantees success.
    b. the leader structures the learning situation.
    c. he is left alone to formulate his own questions.
    d. the setting tolerates failures.

40. To help members learn or change, 4-H leaders should develop the skill of
    a. letting members handle their own projects and helping only when asked.
    b. formulating a basic pattern of activity for all members.
    c. discovering what factors in a given situation are influencing behavior.
    d. discovering the basic personality patterns of the members.

41. A leader or member making or doing something while explaining why he does it, is an example of
    a. role playing.
    b. workshops.
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Beta

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Alpha

ADULT 4-H LEADERS PROJECT FINAL TEST

DIRECTIONS: For each of the following items mark one and only one response that you feel is correct on the enclosed answer sheet. Be sure that the number of the question on the answer sheet corresponds to the same number on the test before marking your choice. Answer every item. When you have finished, place the completed answer sheet in the self-addressed envelope and mail it to Colorado State University. When the final programmed text "Self-Study Course for Adult 4-H Leaders" is published, you will be sent a complimentary copy.

We appreciated your participation in this project.

1. A 4-H member working on a project
   a. must concentrate on a specific approach to be successful.
   b. gains information by testing different alternatives.
   c. should complete his assignment without any outside help.
   d. should develop one method of inquiry.

2. The overall purpose of education is to give youth the
   a. competent and responsible guidance that comes only from education and experience.
   b. necessary experience to develop the qualities needed for successful living.
   c. knowledge, skills, and experience needed to become competent, responsible adults.
   d. chance to express themselves in order to develop the skills necessary for successful living.

3. To reach the highest potential educational values of 4-H, leaders must
   a. rely upon their intuition and personal experience to bridge the age and educational gap.
   b. be prepared to deal effectively with any subject in which members show an interest.
   c. be expert in many different fields in order to meet the needs of both individuals and groups.
   d. skillfully blend subject matter, methods, experiences, and relationships with individuals and groups.

4. An appreciation for the scientific method of inquiry is
   a. an essential requirement for 4-H projects.
   b. not necessary in most 4-H projects.
   c. developed by requiring a specific scientific approach for each project.
   d. developed by testing different alternatives.

5. 4-H projects cannot provide
   a. real life experiences for youth in many areas.
   b. on the job training for some members.
   c. work experiences in social adjustment.
   d. learning experiences matched to school lessons.

6. 4-H methods
   a. are used by all other successful youth organizations.
   b. are based on an understanding of individual youth.
   c. stimulate curiosity and the attitude of inquiry.
   d. take a great deal of learning before being mastered.

7. 4-H will merit respect and support as an educational program
   a. if it meets the standards set up by federal, state, and local government.
   b. if its members recognize the adjustments necessary to meet new situations.
   c. if it can offer areas of instruction not found in any other organization.
   d. only when it has achieved the status of an official educational organization.

8. The identification and development of latent leadership has been called
   a. a condition that benefits all mankind.
   b. the greatest contribution of 4-H.
   c. the real purpose of education.
   d. the real task of any youth group.

9. The most unique feature of 4-H today is concerned with
   a. drawing workers and members from university students.
   b. condensing subject matter into concise understandable form.
   c. combining all age groups profitably.
   d. the subject matter resources of the universities of which 4-H is a part.

10. Federal and state legislation
    a. are in conflict on the administration of Cooperative Extension.
    b. must both be enacted in order to establish Cooperative Extension.
    c. are necessary for the legal establishment of a cooperative.
    d. provide the legal basis for "Why 4-H."

11. The question, "Why 4-H?" today
    a. can be answered by the 4-H program alone.
    b. cannot be answered by legislative mandate alone.
    c. can be answered by 4-H contributions to education.
    d. must be answered in the light of past accomplishments in 4-H.

12. A 4-H program can best be evaluated by
    a. allowing the 4-H members to judge their own behavior.
    b. comparison to regional criteria.
    c. a combination of tests and the leader's judgment.
    d. a combination of the leader, parents and members.

13. Informational data on youth
    a. rarely varies within one community.
    b. varies markedly for one age-group in different localities.
    c. varies between communities and within one community.
    d. is impossible to work with due to individual differences.

14. A major criticism of exhibit judging is that judging fails to consider
    a. progress.
    b. end results.
    c. contributions.
    d. interest.

15. Lists of problems, objectives, and progress evaluations in program planning
    a. help establish order in planning procedures.
    b. should be the responsibility of each member.
    c. should be prepared by the leader and submitted to parents and members.
    d. are more unnecessary in small clubs.

16. 4-H program development should be
    a. a continuous process due to situational changes.
    b. conducted by the members only.
    c. tailored to needs of individual members.
    d. finished before the start of the 4-H year.

17. Younger members are most enthusiastic about activities involving
    a. outdoors.
    b. peers.
    c. school-related topics.
    d. parents.

18. Information about needs and interests of members as well as information about the community comprises _______________ information.
    a. situational
    b. broad objective
    c. physical
    d. program

19. The program designed can discover and identify problems by
    a. studying situational information.
    b. examining other clubs' programs.
    c. interviewing each member.
    d. reviewing previous years' programs.

20. In 4-H terms, learning experiences are mainly concerned with
    a. interaction.
    b. situations.
    c. motivation.
    d. interest.

21. The 4-H leader plays which roles in 4-H learning experiences?
    a. initiative, control and anything else
    b. guidance and control only
    c. initiative, guidance and anything else
    d. guidance and initiative only

22. In 4-H, learning from the church, school and home
    a. is disregarded due to variance in individuals' backgrounds.
    b. must be combined and used by each member.
    c. must be assimulated by the adult leader.
    d. is nearly identical for each member.

23. As a result of giving, observing and discussing demonstrations, members
    a. change their ideas and understanding.
    b. increase their ability.
    c. learn to think, feel and act differently.
    d. all the above.

24. All 4-H demonstrations
    a. should include a summary.
    b. should be conducted by the leader.
    c. vary widely with the nature of the club.
    d. should be conducted by two or more members.

25. Boys and girls who join 4-H expect to learn from it because 4-H is
    a. a continuation of school programs.
    b. under the direction of peers.
    c. a program for youth.
    d. an educational program.

26. The most important factors in a learning experience are
    a. subject, teacher and student.
    b. teacher and learner.
    c. learner and objective.
    d. surroundings, learner and experience.

27. Effective support of a 4-H project considers as most important the particular
    a. situation and project.
    b. project and individual.
    c. individual and situation.
    d. all the above.

28. The primary result of learning is
    a. a sense of accomplishment.
    b. a feeling of competence.
    c. a quest for more knowledge.
    d. a change in behavior.

29. 4-H leaders need to understand that many roles of adolescents
    a. are hard to comprehend.
    b. remain constant throughout most of life.
    c. are not accepted by adults.
    d. are soon outgrown.

30. Increased preference for peer activities as opposed to parent-child activities on the part of the pre-adolescent is a reflection of
    a. a negativistic period on the part of the child that should be ignored by the parents.
    b. a striving for independence and emancipation from the home.
    c. an abnormal part of the pre-adolescent developmental process.
    d. pressures induced by the educative process for conformance by the child.

31. In general, it can be stated that
    a. adolescents desperately need and want adult guidance.
    b. adult guidance will hinder adolescents in their struggle for independence.
    c. adolescents generally do not want adult guidance.
    d. adolescents are ambivalent about their need for adult guidance.

32. The end of pre-adolescence occurs when
    a. peer involvements sharply increase in importance.
    b. dating begins.
    c. biological maturity is reached.
    d. parental rejection begins.

33. The four determinants of personality formation-constitutional, group membership, role, and situational
    a. occur as independent factors of personality formation.
    b. occur as interrelated factors of personality formation.
    c. are independent or dependent in personality formation, depending upon the particular person.
    d. occur as independent factors of personality formation only in youth.

34. Similarities and differences in personality can be accounted for by
    a. studying separately the determinants of personality formation.
    b. relating the determinants of personality formation to certain standardized personality tests.
    c. studying together the determinants of personality formation.
    d. an extensive study of the constitutional determinants of personality.

35. A major difficulty in trying to analyze youth behavior is
    a. the inability of youth to communicate their true feelings to adults.
    b. the times in which we live make youth behavior vastly more unpredictable than in the past.
    c. individual differences; i.e., no two people grow and develop alike.
    d. most parents and youth leaders do not take the necessary time to do an effective job.

36. 4-H clubs reach their peak in membership
    a. at the beginning of the pre-adolescent period.
    b. at the end of the pre-adolescent period.
    c. during the period of adolescence.
    d. during the post-adolescent period.

37. The constitution of a youth refers to his
    a. total physical make-up at any one time.
    b. ability to withstand physical and emotional stress.
    c. basic hereditary pattern uninfluenced by environment.
    d. basic image of himself.

38. An important fact for 4-H leaders to keep in mind is that youth of the same chronological age
    a. only vary slightly in maturity.
    b. can vary as much as three years in maturity.
    c. only vary about a year or two in maturity.
    d. can vary as much as six years in maturity.

39. Geneticists today generally agree that all traits are
    a. inherited.
    b. not inherited.
    c. a product of environmental influence.
    d. not a product of environmental influence.

40. One of the major problems confronting parents and youth leaders about youth is
    a. finding activities in which youth can channel their energies into, so as to prevent socially deviant behavior.
    b. obtaining a clear understanding of why youth rebel against society.
    c. finding reasons behind individual differences in youth.
    d. obtaining an understanding of what is normal behavior and what is deviant behavior.

41. In regard to illustrated talks
    a. the illustrator does what is to be taught.
    b. the illustrator shows how to do what is to be taught.
    c. the illustrator is usually the 4-H leader.
    d. these are examples of community service projects.

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    a. body of the demonstration.
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    d. independent research is necessary before the members can report back to the group.

47. 4-H members can increase knowledge, learn to use information in making decisions and learn to communicate with others best through
    a. field trips.
    b. judging.
    c. demonstrations.
    d. projects.

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    a. are examples of group teaching methods.
    b. are examples of visual-oral teaching methods.
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    d. all the above.

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    a. well-qualified persons to become leaders in the 4-H program.
    b. young people to receive adequate instruction in handling 4-H projects.
    c. democratic participation of youth in community activities.
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52. Resource people can be conveniently grouped into three types on the basis of
    a. communication, prestige and income.
    b. prestige, status and communication.
    c. communication, prestige and skills.
    d. skills, status and prestige.

53. Evaluation of the resources used by the 4-H club
    a. is usually unnecessary.
    b. is the members' responsibility.
    c. is always necessary.
    d. should be sent to national 4-H.

54. In those situations where people are working together cooperatively, we usually observe
    a. unstructured goals.
    b. an absence of a time budget.
    c. an openness of communication.
    d. a strong and helpful leader.

55. To enhance the motivation of a resource person
    a. his task should be unstructured.
    b. the time allowed should be fairly long
    c. he should be warned about free use of his own ideas.
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56. The orientation process for the resource person should usually be accomplished by
    a. group meetings.
    b. parent contacts.
    c. individual contacts.
    d. personal letters.

57. Demonstrations and panels are examples of what type of resource?
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    b. audio-visual
    c. group activities
    d. printed materials

58. Successful experiences with leadership show that
    a. all leaders possess certain inherited traits.
    b. leaders are usually leaders in all fields.
    c. effective leaders use the same methods.
    d. leaders emerge in favorable social climate.

59. In orientation of resource people, emphasis is placed on the ____________ of the job for the resource person.
    a. expectations
    b. motivations
    c. requirements
    d. status

60. Leaders may use the evaluation process as a means of determining strong and weak points as a means of determining areas of needed improvement and as a means of
    a. program analysis.
    b. self-analysis.
    c. member participation.
    d. parent cooperation.

Beta

ADULT 4-H LEADERS PROJECT FINAL TEST

DIRECTIONS: For each of the following items mark one and only one response that you feel is correct on the enclosed answer sheet. Be sure that the number of the question on the answer sheet corresponds to the same number on the test before marking your choice. Answer every item. When you have finished, place the completed answer sheet in the self-addressed envelope and mail it to Colorado State University. When the final programmed text "Self-Study Course for Adult 4-H Leaders" is published, you will be sent a complimentary copy.

We appreciated your participation in this project.

1. The best way in which 4-H leaders can contact people in the community to help in 4-H projects is by
   a. letter.
   b. telephone.
   c. group contact.
   d. personal contact.

2. The best way to unite the club and community is
   a. to hold joint meetings.
   b. to undertake community service projects by the club.
   c. to give the club plenty of publicity.
   d. to choose leaders with status in the community.

3. In planning a meaningful 4-H program, the following should be considered:
   a. the specific interests of 4-H club members.
   b. the understanding that the members have about doing certain projects.
   c. the aspirations that 4-H club members have.
   d. all the above.

4. The 4-H club leader, in involving community members in working on 4-H club projects, should
   a. pay those people for services rendered.
   b. try to recruit them as 4-H club leaders.
   c. involve them in the planning of the projects.
   d. let them decide on the projects needed.

5. Which of the following can be used as a method for selecting 4-H leaders?
   a. Three or four children contact the person they want to be their leader.
   b. Two or three leaders as a team personally contact the person they want to be a leader.
   c. Meeting of all parents of 4-H members is called to ask for volunteers.
   d. All the above.

6. Which one of the following is not a way of relating 4-H clubs to the community?
   a. interest
   b. geographical boundary
   c. authority
   d. influence

7. The foundation for the success of 4-H lies in the
   a. selection of intelligent 4-H leaders.
   b. relationship of the 4-H leader to other people in the community.
   c. parents agreeing upon the selection of the leader.
   d. relationship of the 4-H leader to the county extension agent.

8. In reporting 4-H activities to the newspapers the following should be emphasized.
   a. The job that 4-H leaders are doing in developing youth.
   b. The cooperation that 4-H is getting from the community.
   c. The good that 4-H is doing for the community.
   d. What participation in 4-H is doing for the individual members.

9. 4-H leaders should not
   a. be unacquainted with other youth leaders.
   b. use the county extension agent for information.
   c. involve the community in his work.
   d. use exactly the same resources as other communities.

10. The best way of bridging the gap between the 4-H club and the community is to
    a. inform the community of 4-H club projects.
    b. inform the community of the wide purpose of 4-H.
    c. help improve the community in some way.
    d. gain national recognition for 4-H club projects.

11. The overall purpose of 4-H club meetings is to
    a. help boys and girls.
    b. give boys and girls something to do.
    c. help youth get to know each other.
    d. satisfy the boys' and girls' parents.

12. In reference to the business meeting, complicated business problems should be
    a. left to the officers.
    b. handled by the leader.
    c. settled by the parents.
    d. referred to committees.

13. 4-H club demonstrations
    a. consist of four parts.
    b. should be given by the leader.
    c. include an introduction.
    d. are poor as teaching devices.

14. 4-H club meetings should be conducted in an orderly manner. This is the responsibility of the
    a. leaders and members.
    b. members and officers.
    c. parents and officers.
    d. leaders and officers.

15. Discussion topics should be
    a. clearly defined.
    b. a challenge to thinking.
    c. quite limited in scope.
    d. those the members agree on.

16. In serving refreshments at club meetings, the prime concern is to
    a. raise money for the club.
    b. provide a break in the program.
    c. provide a learning experience.
    d. teach the members table manners.

17. Through 4-H club meetings members mainly learn
    a. correct social actions.
    b. creative use of leisure time.
    c. governmental functioning.
    d. good academic attitudes.

18. Discussions in 4-H club meetings are
    a. poor learning devices.
    b. good methods for developing competition.
    c. better for larger groups.
    d. especially suited to senior members.

19. One of the steps in a demonstration is not
    a. planning.
    b. try out.
    c. testing.
    d. revision.

20. In a group discussion the leader
    a. should be quiet but strict.
    b. completely versed on the topic.
    c. should not necessarily be likeable.
    d. should encourage an informal seating arrangement.

21. The term Extension Agent may cause young people to join 4-H, however,
    a. it takes University support to keep them interested.
    b. they need vocational guidance to keep them interested.
    c. they must have constant supervision to make it worthwhile.
    d. it takes the good will and help of parents to keep the fire burning.

22. The volunteer 4-H leader's success with young people can be multiplied by
    a. seeking and obtaining parent cooperation.
    b. providing sufficient funds to guarantee success.
    c. establishing a 4-H course in the local high school.
    d. offering projects that will appeal to every interest.

23. Parents should cooperate with 4-H by
    a. encouraging their children to give a demonstration or prepare an exhibit.
    b. encouraging their children to take part in as many other youth groups as possible.
    c. refraining from extending their influence to 4-H members other than their own children.
    d. all the above.

24. The quantity and quality of parent cooperation in 4-H
    a. is largely determined by local acceptance of the 4-H program.
    b. is restricted by extension service regulations for 4-H projects.
    c. is highly related to the leader's attitudes and skills in working with parents.
    d. is largely determined by the 4-H leader's ability to understand parents.

25. In order to alert parent interest and enhance their understanding, the 4-H leader should
    a. include the parents of prospective members in special programs.
    b. give those parents with particular talents permanent positions in the 4-H program.
    c. rotate opportunities among parents to serve 4-H in various ways.
    d. be sure that parents are continually reminded of what 4-H can do for young people.

26. It is the responsibility of the ______________________ to interest parents in sharing their abilities and reflecting their personality through 4-H.
    a. national 4-H magazines
    b. 4-H club members
    c. 4-H club leaders
    d. 4-H parents already involved

27. The 4-H leader must be sure that the parents
    a. divide their responsibilities equally among themselves.
    b. do not pick projects which will be too easy for members to complete.
    c. see him as being objective and fair in dealing with club members.
    d. understand and approve of all facets of the 4-H program.

28. The wise local 4-H leader
    a. acquaints himself with the abilities of various parents before he asks them to assist.
    b. allows all parents who volunteer to perform the task at which they are most skilled.
    c. uses only those parents who can perform a certain needed function of the club.
    d. investigates the abilities of the parents after asking for their assistance.

29. 4-H public recognition
    a. should be given to all parents regardless of the ways in which they cooperate.
    b. expands and retains parent cooperation.
    c. should be under the direction of the volunteer 4-H leaders.
    d. all of the above.

30. Extension agents are responsible for
    a. planning and assigning appropriate projects to 4-H members.
    b. training lay leaders to work effectively with parents.
    c. publicizing and obtaining community acceptance of 4-H programs.
    d. administering funds provided by federal, state, and local extension services.

31. Members learn best
    a. when motivated by success.
    b. when given extrinsic rewards.
    c. with rote methods of teaching.
    d. when promised latent rewards.

32. 4-H club members are more motivated when the club goals are set by
    a. the club leader.
    b. club members themselves.
    c. leaders and members together.
    d. members and parents.

33. The meaning of a given situation to a person
    a. gives direction to his behavior.
    b. remains constant through time.
    c. is controlled by peer group influences.
    d. all the above are true.

34. The 4-H leader can resolve potential conflict between himself and the members by
    a. recognizing how the member views a situation and how the view differs from his own.
    b. trying to change his adult viewpoint to that of the members.
    c. investigating factors in individuals backgrounds which make them behave as they do.
    d. trying to judge each member's behavior according to established criteria.

35. Efficient learning takes place when
    a. intense as opposed to moderate motivation is employed.
    b. motivation by punishment is used as opposed to motivation by reward.
    c. failure is used to motivate mature members.
    d. the reward or punishment is an inherent aspect of the learning situation.

36. By changing the person himself, and/or altering the situation, the 4-H leader can
    a. elicit similar behavioral responses.
    b. bring about a behavioral change in a person.
    c. overcome cultural differences among the members.
    d. control the member's behavioral patterns.

37. The worst effect on immediate and later learning is brought about by
    a. general punishment.
    b. undeserved praise.
    c. condemnation.
    d. ignoring the learner.

38. An infant's basic sense of trust
    a. is essential to developing a healthy self-concept.
    b. is the first human emotion to be experienced.
    c. must be diminished by the time he reaches adulthood.
    d. is developed when he becomes aware of his environment.

39. A child learns the difference between himself and others and becomes capable of relating to others around
    a. one to two years of age.
    b. four to six years of age.
    c. two to four years of age.
    d. three to five years of age.

40. The social motives of competition and rivalry
    a. facilitate the acquisition of factual information and routine skills.
    b. enhance the learning of factual information with detrimental concomitants.
    c. improve creative work and conversational skills.
    d. encourage social justice and group cooperation.

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    a. the illustrator does what is to be taught.
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APPENDIX G

DIAGRAM #1

EXPERIMENTAL DESIGN

	ALPHA							BETA					
Chapters	1	2	3	4	5	6		7	8	9	10	5	6
Subgrp.							Subgrp.						
1 (150)	MC	MC	MC	MC	UP	UP	A (150)	MC	MC	MC	MC	UP	UP
2 (150)	MCM	MCM	MCM	MCM	UP	UP	B (150)	MCM	MCM	MCM	MCM	UP	UP
3 (150)	E	E	E	E	UP	UP	C (150)	E	E	E	E	UP	UP
4 (150)	EA	EA	EA	EA	UP	UP	D (150)	EA	EA	EA	EA	UP	UP

legend:

MC: Multiple Choice
MCM: Multiple Choice Marked
E: Essay
EA: Essay Answered
UP: Unprogrammed

APPENDIX H

REQUEST FOR FINAL TEST

I have completed the six Adult 4-H Leader units and am now ready to take the final test. I agree not to consult the text material while taking the test.

Signature

APPENDIX I

COOPERATIVE EXTENSION SERVICE

COLORADO STATE UNIVERSITY

FORT COLLINS, COLORADO 80521

Dear 4-H Leader:

Your participation in the Adult 4-H Leaders Project has been very much appreciated by Dr. Charles O. Neidt, Director of this program. Your cooperation has made possible the publication of a programmed 4-H manual, and Dr. Neidt expects to send you a copy of this material when it is completed within a few months.

On behalf of all Extension Personnel and for State 4-H Club Staffs in particular, I want to express appreciation for your cooperation in this program. The new manual which you have assisted with should help local leaders to interpret and direct the 4-H program in such a manner that more youth will benefit from it throughout the nation.

Very truly yours,

C G Staver

C. G. Staver
State 4-H Club Leader
Colorado State University

COLORADO STATE UNIVERSITY AND U.S. DEPARTMENT OF AGRIÇULTURE COOPERATING

APPENDIX J

CODE-ADULT 4-H PROJECT

Column 1, 2, 3 : Identification Number

Column 4: Group:
1. Alpha--MC
2. Alpha--MC Marked
3. Alpha--Essay
4. Alpha--Essay Marked
5. Beta--MC
6. Beta--MC Marked
7. Beta--Essay
8. Beta--Essay Marked

Column 5, 6 : Programmed Post Test Score

Column 7, 8 : Programmed Pre Test Score

Column 9, 10 : Unprogrammed Post Test Score

Column 11, 12: Unprogrammed Pre Test Score

Column 13 : State of Residence
1. Arizona
2. Georgia
3. Vermont
4. Wisconsin

Column 14 : Sex
1. Female
2. Male

Column 15 : 4-H Member
1. Yes
2. No

Column 16, 17: Years 4-H Leader

Column 18, 19: Years Since Last Schooling

Column 20 : Population of Area
1. Rural
2. Town of less than 2,500
3. Town of 2,500 to 10,000
4. City of 10,000 to 50,000
5. City of over 50,000

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